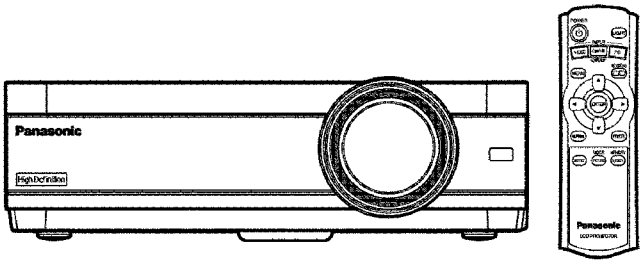
ORDER NO. VED0310349C0
D10

Service Manual

LCD Projector

PT-AE500U
PT-AE500E



Panasonic

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The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service Manual.

Specifications

Power supply:
100 V - 240 V AC, 50 Hz / 60 Hz
Power consumption:
180W [During standby (when fan is stopped): Approx. 1 W]
Amps:
2.2 A - 1.0 A
LCD panel:
Panel size (diagonal): 0.7 type (17.78 mm)
Aspect ratio: 16:9
Display method: 3 transparent LCD panels (RGB)
Drive method: Active matrix method
Pixels: 921 600 (1 280 × 720) × 3 panels
Lens:
Manual zoom (1 - 1.2) / focus lens
F 1.9 - 2.2, f 22.0 mm - 26.2 mm
Lamp:
UHM lamp (130 W)
Luminosity:
850 lm
Scanning frequency (for RGB signals):
Horizontal scanning frequency: 30 kHz - 70 kHz
Vertical scanning frequency: 50 Hz - 87 Hz
Dot clock frequency: 100 MHz or less
YPBPR signals:
525i (480i), 525p (480p), 625i (576i), 625p (576p), 750p (720p), 1125i (1080i)
Color system:
7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60/ SECAM)
Projection size:
1 016 mm - 5 080 mm
Throw distance:
1.2 m - 7.4 m
Optical axis shift:
17:1 (fixed)
Screen aspect ratio:
16:9
Installation:
Front / Rear / Ceiling / Desk (Menu selection method)
Connectors:
VIDEO IN:
S-VIDEO: Single-line, Mini Din 4-pin
Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,
VIDEO: Single-line, RCA pin jack
1.0 V [p-p], 75 Ω
PC IN:
RGB: Single-line, D-SUB HD 15-pin (female)
R.G.B: 0.7V [p-p], 75Ω
G.SYNC: 1.0 V [p-p], 75Ω
HD/SYNC: TTL high impedance, automatic plus/minus polarity compatible
VD: TTL high impedance, automatic plus/minus polarity compatible
COMPONENT IN :
Y, PB/CB, PR/CR: Signal-line, RCA pin jack × 3
Y: 1.0 V [p-p], 75Ω
PB, PR (CB, CR): 0.7 V [p-p], 75Ω
DVI-D IN : Single-line, DVI-D, 24-pin
AV1 input (PT-AE500E only): 21 pin terminal
VIDEO: 1.0 V [p-p], 75Ω
RGB: R.G.B.: 0.7 V [p-p], 75Ω
SYNC.: 0.3V [p-p], 75Ω
TRIGGER out : M3 jack
When the power is turned on (during projection): 12 V
When the power is turned off: 0 V
Cabinet:
Molded plastic (ABS / PC)
Dimensions:
Width: 280 mm (Not including projecting parts)
Height: 85 mm
Length: 269 mm (Not including lens)
Weight:
2.9 kg
Operating environment:
Temperature: 0° C - 40° C
(When the "FAN CONTROL" is set to "HIGH": 0° C - 35° C)
Humidity: 20 % - 80 % (no condensation)
Certifications:
PT-AE500U: UL60950, C-UL, FCC Class B
PT-AE500E: EN60950, EN55022, EN61000-3-2, EN61000-3-3, EN55024

<Remote control unit>
Power supply:
3 V DC (AAA battery × 2)
Operating range:
Approx. 7 m
(when operated directly in front of signal receptor)
Weigh:
70 g (including batteries)
Dimensions:
Width: 43 mm
Height: 22.3 mm
Length: 135 mm
Accessories:

Remote control unit (N2QAEA000019):		1
AAA batteries for remote control unit (×2)**:**		1
Power cord:	**PT-AE500U:** K2CG3FR00001	1
	PT-AE500E: K2CT3FR00001 (U.K)	1
	: K2CM3FR00001 (continental)	1
Video cable [K2KA2FA00003 (3.0 m)**]:**		1
Carrying bag (TPEP008):		1

Options:

Ceiling bracket:	ET-PKE300
Projection Screen:	ET-SR90CT (width:1 800 mm)
	ET-SR70CT (width:1 400 mm)

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Trademark Acknowledgements

- VGA and XGA are trademarks of International Business Machines Corporation.
- S-VGA is a registered trademark of the Video Electronics Standards Association.

All other trademarks are the property of the various trademark owners.

Precaution

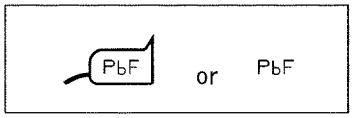
If using this projector at high elevations (above 1 400 m), set the FAN CONTROL to HIGH. (Refer to "Option settings" in Operating Instructions.)
Failure to observe this may cause malfunctions.
Never use this projector at an elevation of 2 700 m or higher.
Using this projector at high elevations, consult your dealer or Authorized Service Center about preparations.

About lead free solder (PbF)

This projector is using the P.C.Board which applies lead free solder. The use of lead free solder is recommended from the standpoint of antipollution for the global environment in service.
Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217°C) than standard solder. Typically, the melting point is 30°C to 40°C higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10°C.
- Be precautious about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600°C or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder. (When you unavoidably use lead solder, use lead solder after removing lead free solder. Or be sure to heat the lead free solder until it melts completely, before applying lead solder.)
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board
For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.



For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

WARNING:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

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1 Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.
- Unplug the power cord from the power outlet before disassembling this projector.
- It is advisable to use an isolation transformer in the AC power line before the service.
- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.
- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.
- After the service, check the leakage current to prevent the customer from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.

   Be sure to use a voltmeter having the performance described in Table 1.

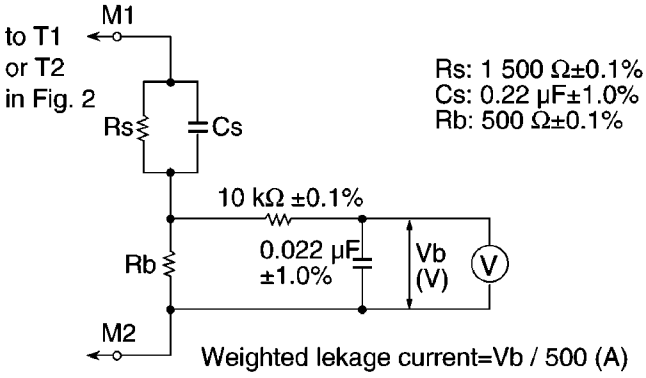


Fig. 1

	Performance
Voltmeter (rms reading)	Accuracy: ≤ 2% Input resistance: ≥ 1 MΩ Input capacitance: ≤ 200 pF Frequency range: 15 Hz to 1 MHz

Table 1

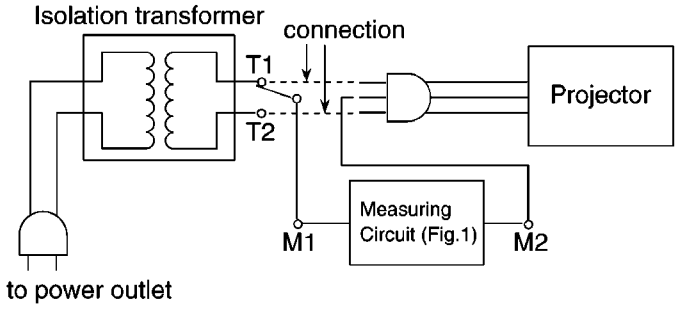


Fig. 2

2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.
3. Connect M1 to T1 according to Fig. 2 and measure the voltage.
4. Change the connection of M1 from T1 to T2 and measure the voltage again.
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.
6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- Because the high pressure lamp involves a risk of explosion, never touch the lamp wire lead during the service. (See Fig. 3)

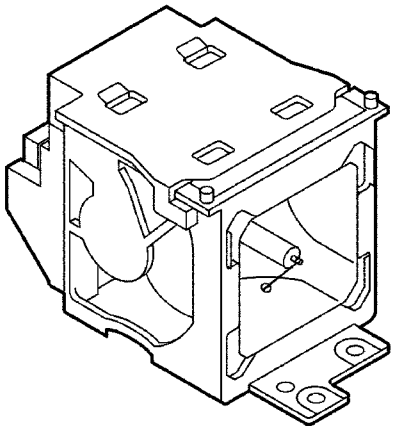


Fig. 3

2 Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK, SERVICE MODE and FLICKER ADJ for service, etc.

2.1. Procedure to enter EXT OPTION

1. Press "MENU" button on the main unit or remote control unit to display "MENU" screen, then select "OPTION" and press "ENTER" button.
2. Select "OSD" on "OPTION" menu and press "ENTER" button 3 seconds or longer.

   MENU → OPTION → OSD

2.2. EXT OPTION Menu and Functions

EXT OPTION

FREEZE MSG	OFF / ON
PIC.SHIFT	OFF / ON
RUNTIME PRT	OFF / ON
FAN FULLMODE	OFF / ON
AUTO SETUP	NORMAL / SPECIAL
SELF CHECK	
SERVICE MODE	
FLICKER ADJ	

- FREEZE MSG

  Switching ON/OFF "FREEZE" on-screen display
- PIC.SHIFT

  Switching ON/OFF the antipersistence function
  - Shifts the picture slightly (by one dot) when every 60 minutes. (one dot shifting three times, one dot shifting three times in reverse direction, and repeats them alternately.)
- RUNTIME PRT

  Switching ON/OFF the shutdown when the operation time for the lamp unit is 2 000 hours or longer
- FAN CONTROL

  Setting the cooling fan motor rotation speed
  - Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "FAN CONTROL" in OPTION becomes impossible (setting FAN FULLMODE is given priority more than FAN CONTROL).
- AUTOSETUP

  Setting AUTO SETUP mode
  - NORMAL: To set the normal mode (the dot clock is adjusted strictly)
  - SPECIAL: To set the special mode (the dot clock is adjusted roughly)

  * Do not change the initial setting (NORMAL).
- SELF CHECK

  To enter the self-check mode
- SERVICE MODE

  To enter the service mode
- FLICKER ADJ

  To enter the flicker adjustment mode

2.3. Canceling EXT OPTION

Press "MENU" button on the main unit or remote control unit.

3 Self-Check Mode

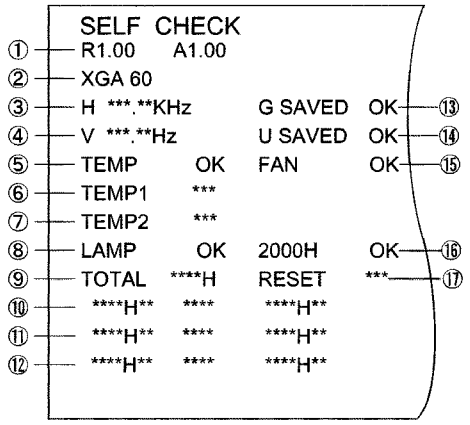
This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

3.2. Self Check Display and Contents

Display example


SELF CHECK
① R1.00 A1.00
② XGA 60
③ H ***.**KHz G SAVED OK ⑬
④ V ***.**Hz U SAVED OK ⑭
⑤ TEMP OK FAN OK ⑮
⑥ TEMP1 ***
⑦ TEMP2 ***
⑧ LAMP OK 2000H OK ⑯
⑨ TOTAL ****H RESET *** ⑰
⑩ ****H** **** ****H**
⑪ ****H** **** ****H**
⑫ ****H** **** ****H**

* Above display is an example and the display contents depend on the input signal mode.

The result of items "G SAVED", "U SAVED", "TEMP", "FAN", "LAMP" and "2000H", "OK" is displayed for OK and "NG" is displayed for NG.

	Display Contents	Remarks	
①	Microcomputer / FPGA Software Version Display *1	Microcomputer (IC1010) and FPGA (IC1007) software versions are shown from the left.	
②	Signal Name	Different display according to the input signal	
③	Horizontal Signal Frequency	RGB or YP_BP_R (YC_BC_R) signal reception only	
④	Vertical Signal Frequency	RGB or YP_BP_R (YC_BC_R) signal reception only	
⑤	Temperature Abnormality Check	Cause of Lamp Malfunction	
⑥	Thermosensor 1 A/D conversion value (0 - 255) *2	Around the LCD panel	
⑦	Thermosensor 2 A/D conversion value (0 - 255) *2	Around the air intake slot (Detects air filter's choke, etc.)	
⑧	Lamp Abnormality Check	Cause of Lamp Malfunction	
⑨	Total Usage Time	Projector Cumulative Usage Time	
⑩	Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time	Current	Cumulative Usage Time (actual time), ON Frequency and Cumulative Usage Time (conversion time for 130 W) of the lamp are shown from the left.
⑪		Second	
⑫		First	
⑬	Gamma Correction Data Check	It is distinguished whether gamma data is stored in the flash ROM.	
⑭	Color Unevenness Correction Data Check	It is distinguished whether color unevenness correction data is stored in the flash ROM.	
⑮	Fan Stop Check	Cause of Lamp Malfunction	
⑯	Lamp - Judgment for Cumulative Usage more than 2 000 h	Judgment for Replacement Time of Lamp	
⑰	Lamp - Reset Frequency of Cumulative Usage Time	Reset Frequency (0 - 255)	

*1 FPGA (Field Programmable Gate Array)
LSI that is rewritable quickly while inspecting the program by system designer. (This will be able to reduce the development time.)

*2 When detected abnormal temperature (high temperature around the LCD panel, large difference between temperature at the intake slot and temperature around the LCD panel), TEMP indicator turned on. If arriving at the critical temperature, the power supply will be shutdown automatically and the indicator will flash.

3.3. Canceling the self-check mode

Press "MENU" button on the main unit or remote control unit.

4 Service Mode

This mode is used to display seven kinds of test patterns [Horizontal lines, Vertical lines, Dots, Crosshatch, White cross, Black cross and White (No pattern)] in the four colors (White, Red, Green and Blue).

Note:

- On the service mode, displays above patterns by each color without test equipment such as PC or SG. Use the service mode for simplified adjustments by your eyes and so on.

4.1. Procedure to enter the service mode

Select "SERVICE MODE" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

- In the service mode, pressing the up-arrow " ▲ " or down-arrow " ▼ " button allows the test pattern selection and the left-arrow " ◀ " or right-arrow " ▶ " button the color selection (White / Red / Green / Blue).

4.2. Canceling the service mode

Press "MENU" button on the main unit or remote control unit.

5 Flicker Adjustment Mode

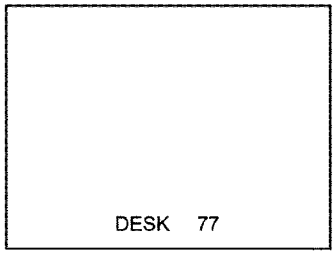
If replacing the optical parts (Analysis / LCD / Lens block) of this projector, and/or A-P.C.Board (assembly), enter the flicker adjustment mode and minimize the flicker.

5.1. Procedure to enter the adjustment mode

Select "FLICKER ADJ" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

"DESK setting (blue)" is displayed when entering the adjustment mode.



Adjustment Display when DESK setting

5.2. Adjustment Display and Contents

- Setting value is increased and decreased with the right-arrow " ▶ " and left-arrow " ◀ " buttons.
  " ◀ ": Decrease, " ▶ ": Increase
  – Adjust the setting value to minimize the flicker on the screen.
  – Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow " ▲ " and down-arrow " ▼ " buttons.
  " ▲ ": Forward direction, " ▼ ": Reverse direction
  – There are 6 patterns of "DESK setting (blue)", "DESK setting (red)", "DESK setting (green)", "CEILING setting (blue)", "CEILING setting (red)" and "CEILING setting (green)".
  – The setting value is saved into this projector when the pattern is switched.

5.3. Canceling the flicker adjustment mode

Press "MENU" button on the main unit or remote control unit.

Note:

When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.

6 Disassembly Instructions

Warning:

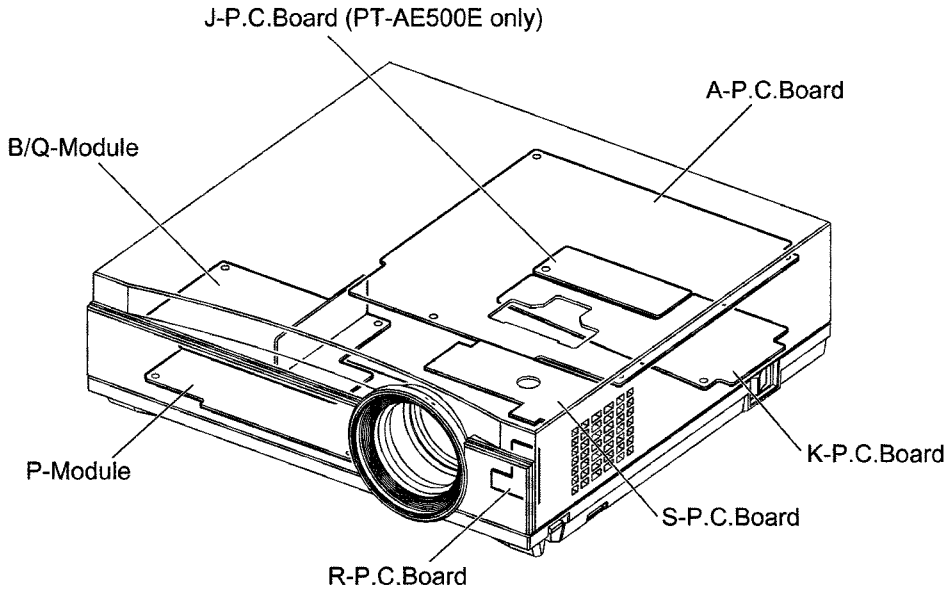
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

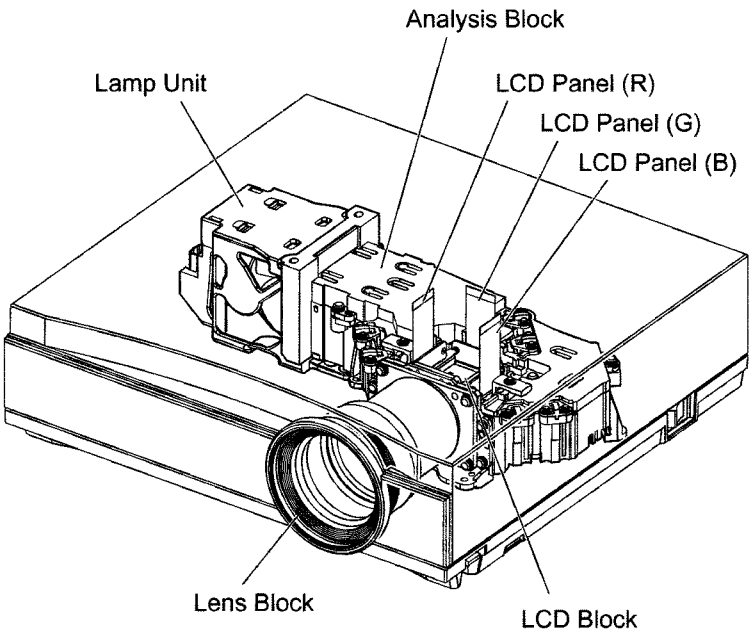
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- After repairing this projector, be sure to put back the wires and connectors to the original condition.

6.1. Printed Circuit Board and Main Parts Location

Electrical Parts

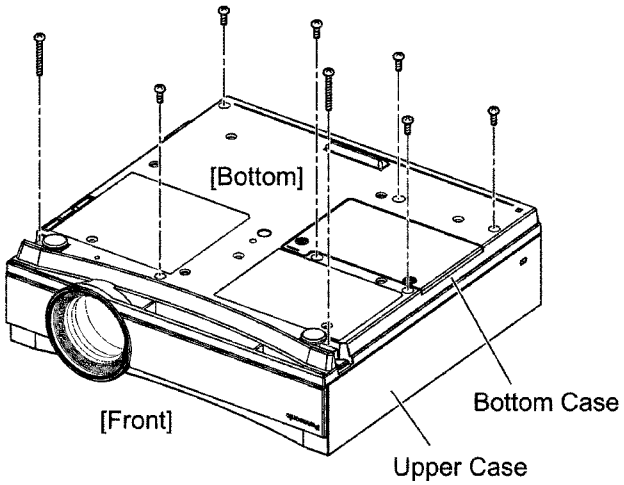


Optical Parts



6.2. Removal of Upper Case

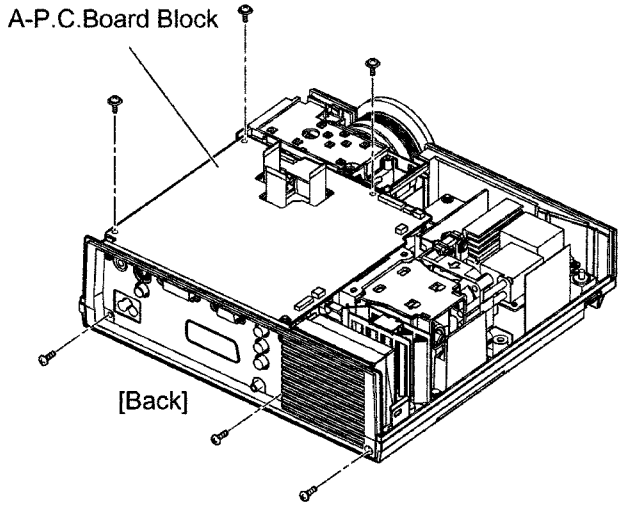
1. Turn the projector upside down.
2. Unscrew the 8 screws fixing the upper case.



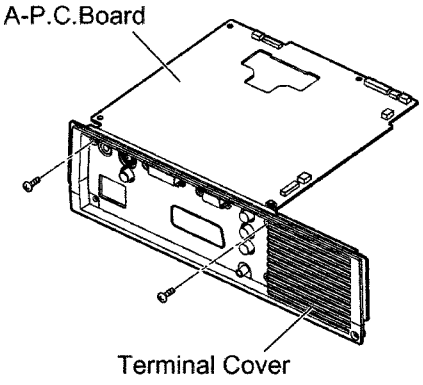
3. Return the projector to the normal position.
4. Remove the upper case.

6.3. Removal of A-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Disconnect the connectors from/to the A-P.C.Board.
3. Unscrew the 6 screws and remove the A-P.C.Board block.

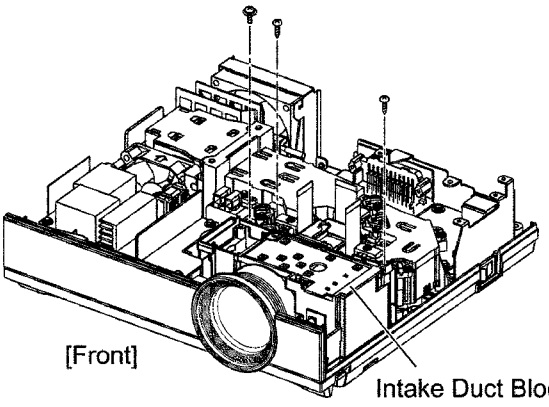


4. Unscrew the 2 screws and remove the terminal cover.

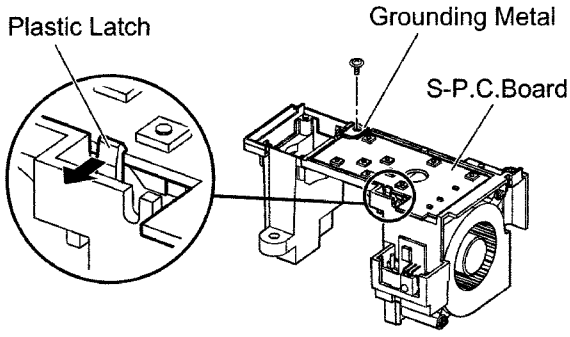


6.4. Removal of S-P.C.Board

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 3 screws and remove the intake duct block.



3. Unscrew the 1 screw and remove the grounding metal.
4. While pressing the plastic latch in the direction of arrow, remove the S-P.C.Board.



Note:

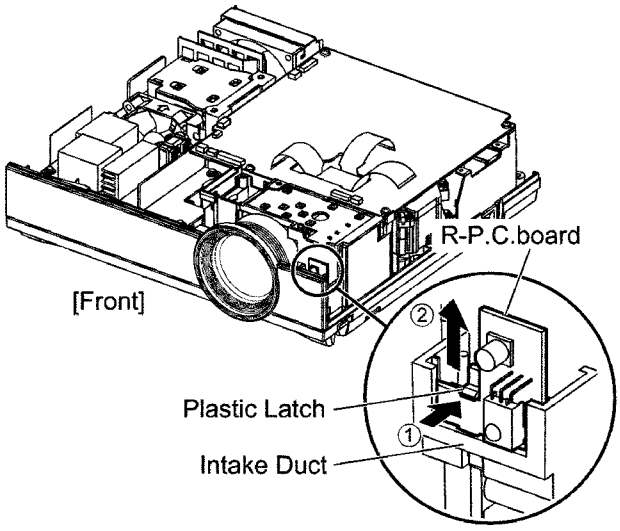
- Work with care because the plastic latch may be damaged if it is overforced.

6.5. Removal of R-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. While pressing the plastic latch of the intake duct in the direction of arrow (1), remove the R-P.C.Board upward.

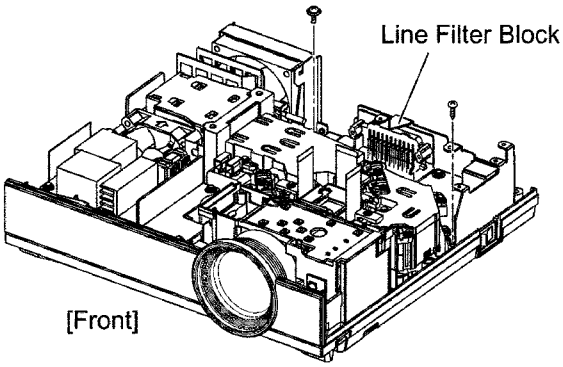
Note:

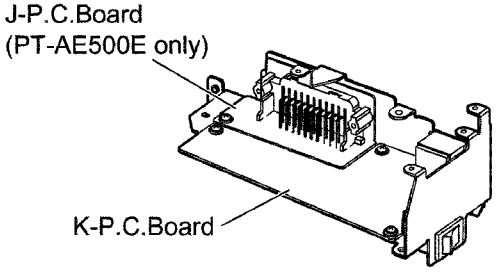
- Work with care because the plastic latch may be damaged if it is overforced.



6.6. Removal of K-P.C.Board and J-P.C.Board (PT-AE500E only)

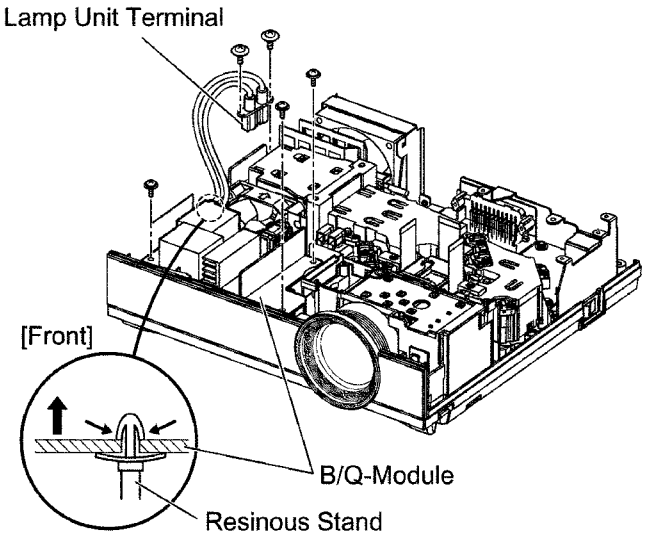
1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the line filter block (K-P.C.Board and J-P.C.Board).





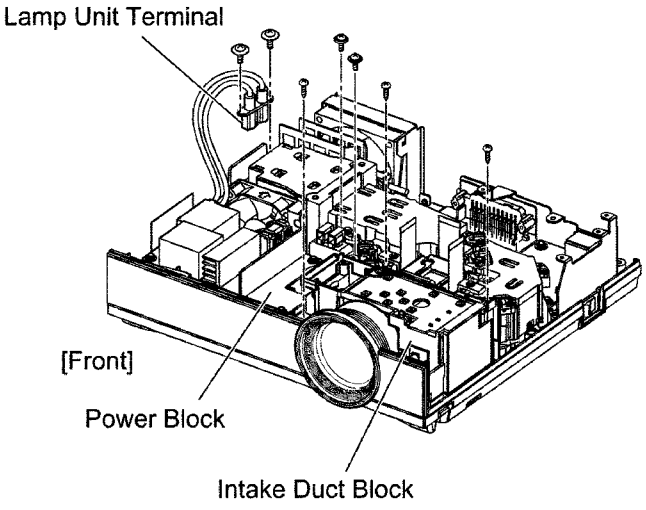
6.7. Removal of B/Q-Module

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the lamp unit terminal.
3. Unscrew the 3 screws.
4. While pressing to close the cap of the resinous stand, remove the B/Q-Module.

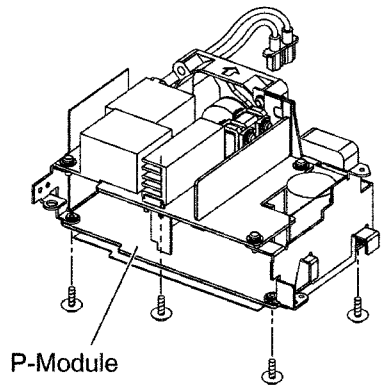


6.8. Removal of P-Module

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 3 screws and remove the intake duct block.
3. Unscrew the 2 screws and remove the lamp unit terminal.
4. Unscrew the 2 screws and remove the power block (P-, B/Q-Modules block).

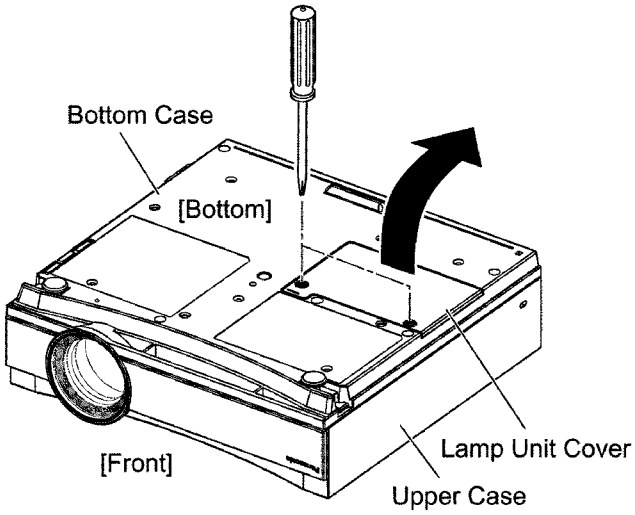


5. Unscrew the 4 screws and remove the P-Module.

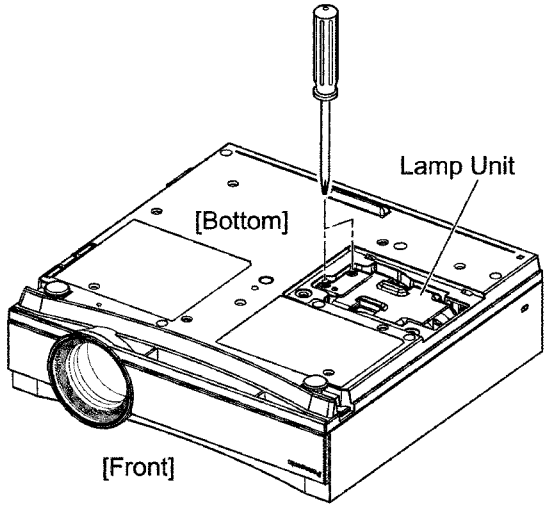


6.9. Removal of Lamp Unit

1. Turn the projector upside down.
2. Loosen the 2 screws until they idle, lift the lamp unit cover to remove.

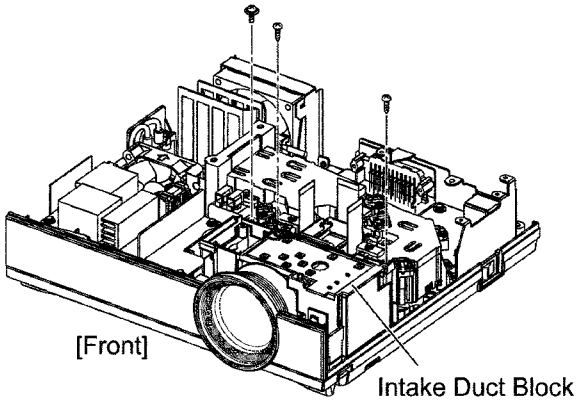


3. Unscrew the 2 screws fixing the lamp unit and remove the lamp unit.

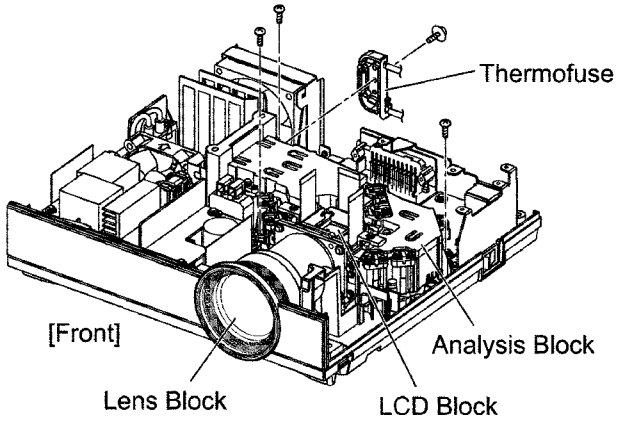


6.10. Removal of Analysis Block, LCD Block and Lens Block

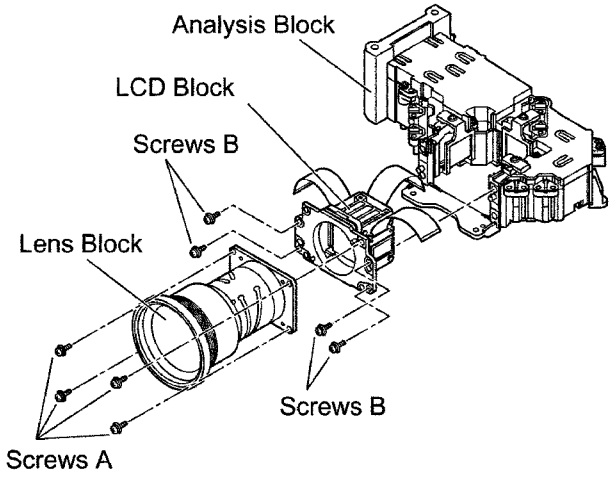
1. Remove the lamp unit according to the section 6.9. "Removal of Lamp Unit".
2. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
3. Unscrew the 3 screws and remove the intake duct block.



4. Unscrew the 1 screw and separate the thermofuse from the analysis block.
5. Unscrew the 3 screws and remove the analysis/LCD/lens block.



6. Unscrew the 4 screws A to separate the lens block and the LCD block, unscrew the 4 screws B to separate the LCD block and the analysis block.

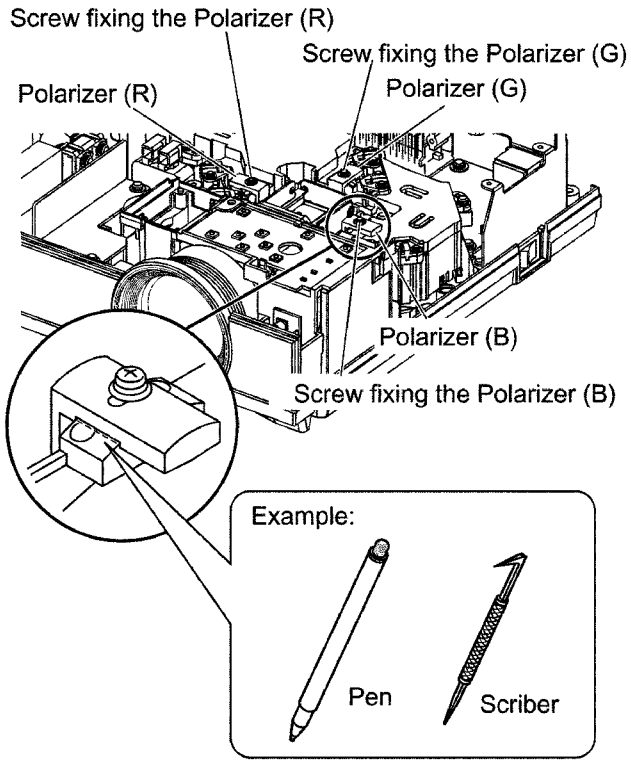


6.11. Replacement of Polarizer

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Mark positions of the polarizer (R/G/B).

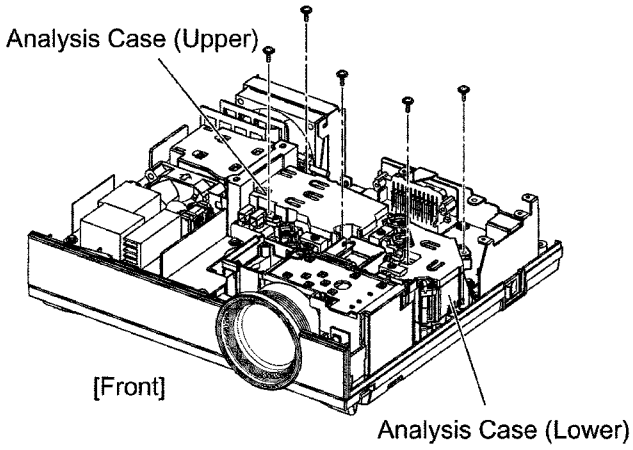
   Note:

   - Mark accurately as possible because the marks will be used for resetting the polarizer position.
3. Unscrew each screw fixing the polarizer and remove the polarizer.
4. Attach a new polarizer and align it with the mark.
5. Tighten the screw fixing the polarizer with care not to move its position.



6.12. Replacement of PBS Array (Analysis Block)

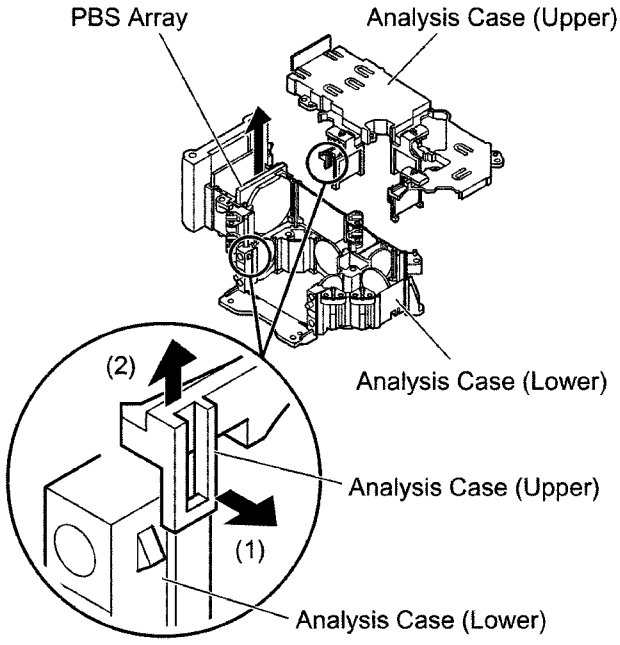
1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 5 screws.



3. Disconnect 2 joint hooks of the analysis cases and remove the analysis case (upper).

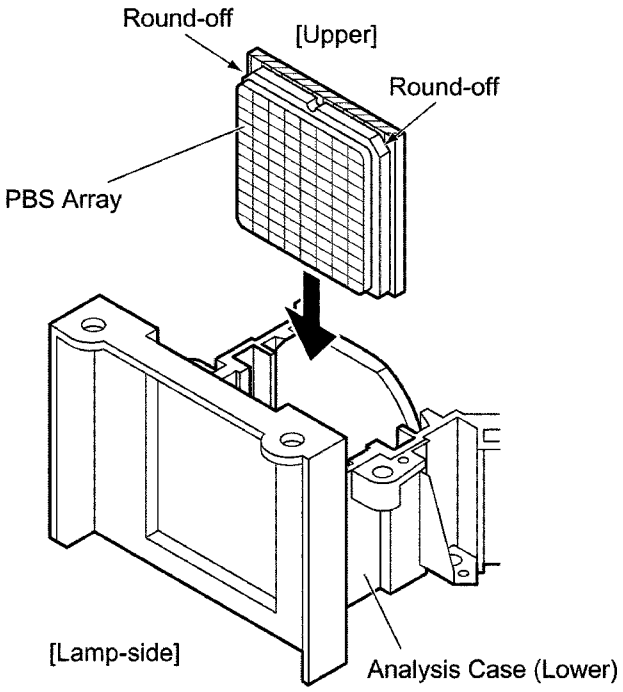
   Notes:

   - While pulling the hook of the analysis case (upper) in the direction of arrow (1), unhook it from the analysis case (lower).
   - Polarizers (R/G/B) are attached on the analysis case (upper). Handle with care not to apply external force to the polarizers.
   - Do not touch optical components (lens, mirror, etc.) of the analysis block. If dirt or aberration has brought into existence, efficiency of the projector may deteriorate.



[Above figure is shown only the analysis block for explanation.]

4. Take out upward the PBS array with the edges, then replace it.

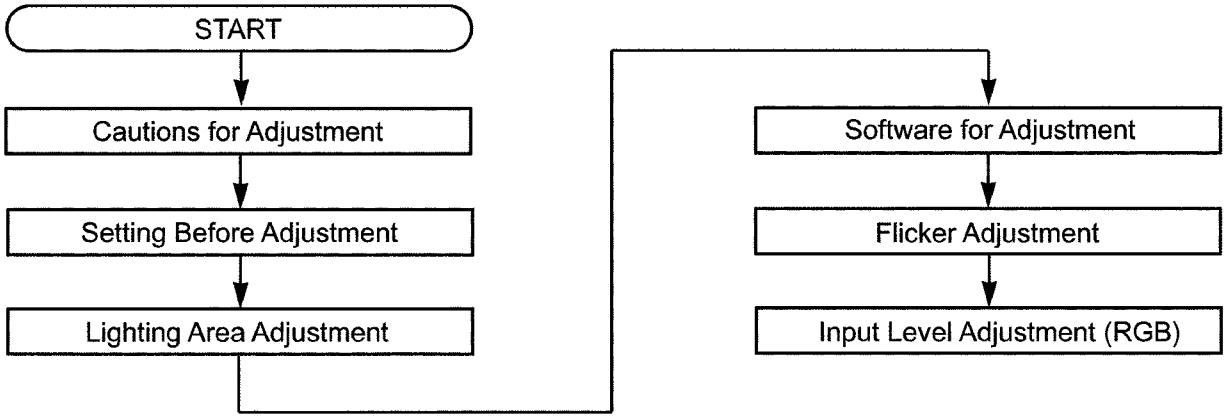


Note:

- When attaching a new PBS array, be careful not to mistake the direction.

7 Measurement and Adjustments

7.1. Adjustment Procedure Flowchart

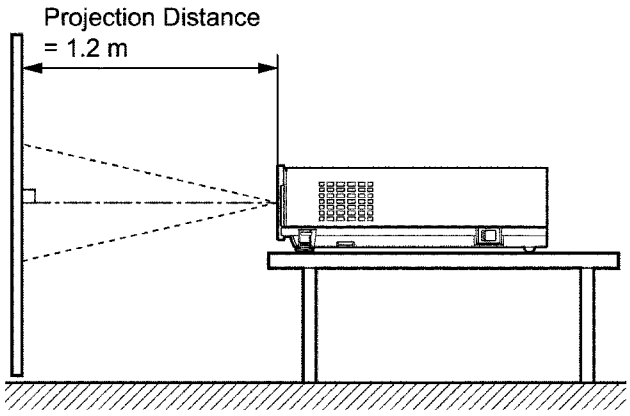


7.2. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

7.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.



7.4. Lighting Area Adjustment

7.4.1. Tools to be used

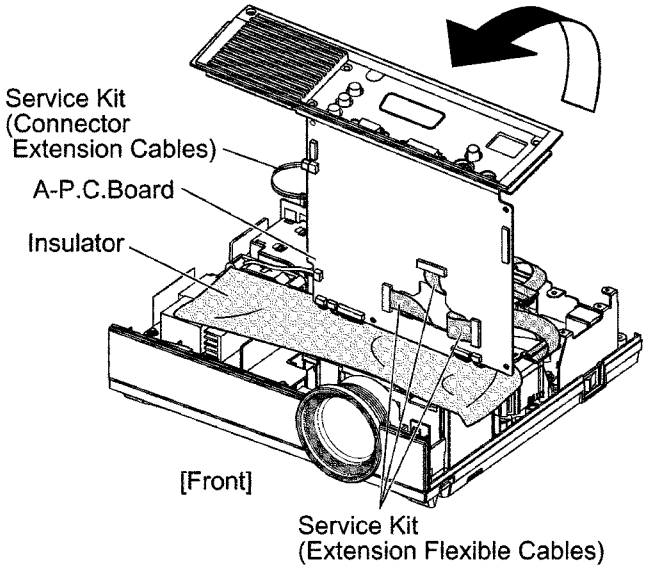
Service Kit (Part No. TZSH07006): This kit is composed of 3 extension flexible cables and 1 connector extension cable.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

7.4.2. Preparation

1. Remove the upper case and unscrew the 6 screws according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Connect the service kit (extension cables).
   - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
   - Connector of Exhaust Fan - Connector (A17) on A-P.C.Board
3. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board on the main unit.



Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.

7.4.3. Adjustment Procedure

7.4.3.1. Outline

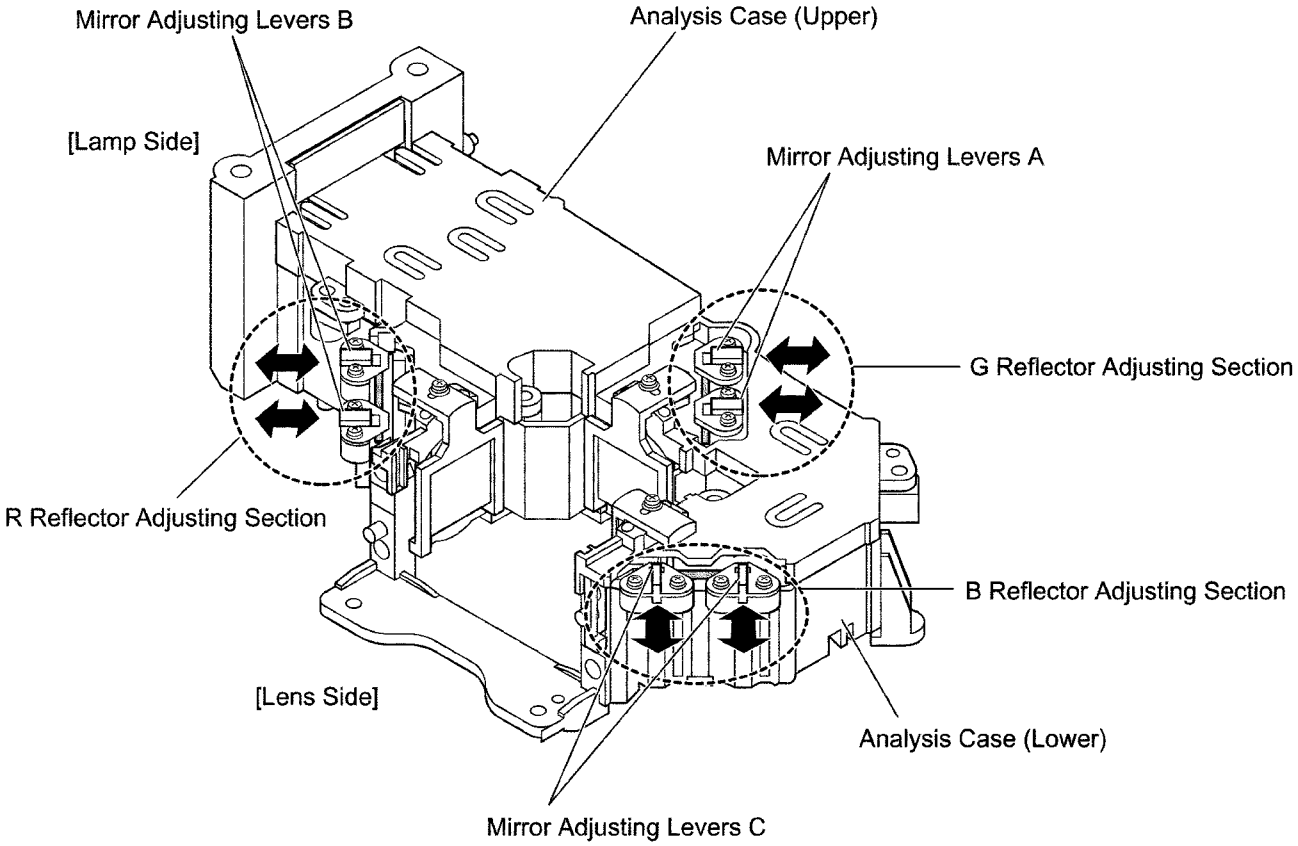
When the lighting area is off from the adjustment and color

unevenness appears, adjust the lighting area into correct position.

Symptom	Measure
Magenta unevenness	G Reflector Adjustment
Cyan unevenness	R Reflector Adjustment
Yellow unevenness	B Reflector Adjustment

- Shifting two mirror adjusting levers in the same direction, adjust color unevenness on the screen upper/lower sides.
- Shifting two mirror adjusting levers in opposite directions, adjust color unevenness on the screen right/left sides.

[Analysis Block]



[Above figure is shown only the analysis block for explanation.]

7.4.3.2. G Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen each screw fixing the 2 mirror adjusting levers A just until the lever can be shifted.
3. Adjust the mirror adjusting levers A positions to minimize color unevenness on the screen by shifting the levers in arrow directions.
4. Tighten each screw.

7.4.3.3. R Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen each screw fixing the 2 mirror adjusting levers B just until the lever can be shifted.
3. Adjust the mirror adjusting levers B positions to minimize color unevenness on the screen by shifting the levers in arrow directions.
4. Tighten each screw.

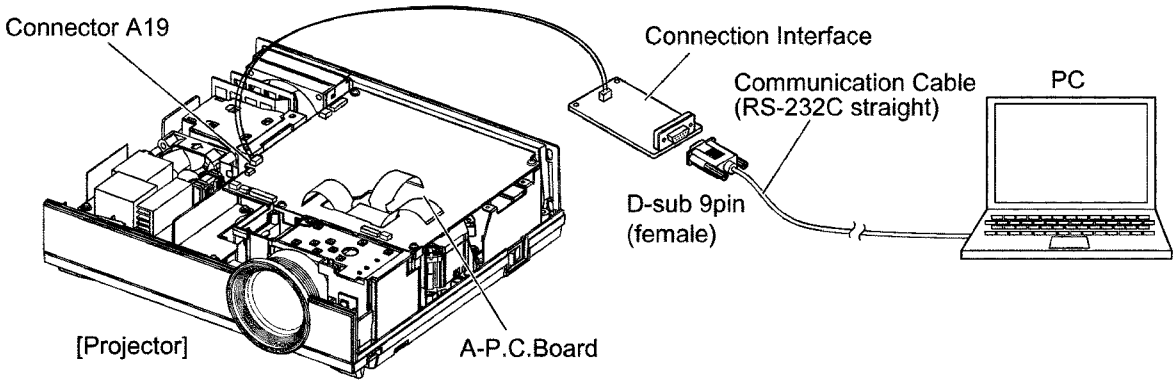
7.4.3.4. B Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen each screw fixing the 2 mirror adjusting levers C just until the lever can be shifted.
3. Adjust the mirror adjusting levers C positions to minimize color unevenness on the screen by shifting the levers in arrow directions.
4. Tighten each screw.

7.5. Software for Adjustment

7.5.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.
- Connect the connection interface and communication cable between the projector and a PC as shown below.
- Updating the software will change the version number.



7.5.2. Operating Procedure

1. Run the software program by the keyboard entry.

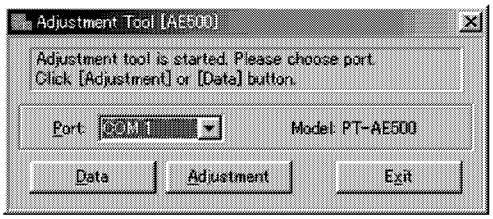
Note:

- Use the software program as below.

  Adjustment Tool [AE500]

2. The first menu is Port selection menu.
3. Adjust the projector by selecting the necessary item from the menu in each stage.

7.5.3. Port Name and Projector Selection Menu



Select the port name of PC which connects with the projector, then click [Data] or [Adjustment] button.

7.5.3.1. Explanation of Buttons

Data:

Displays the data transmission/reception menu.

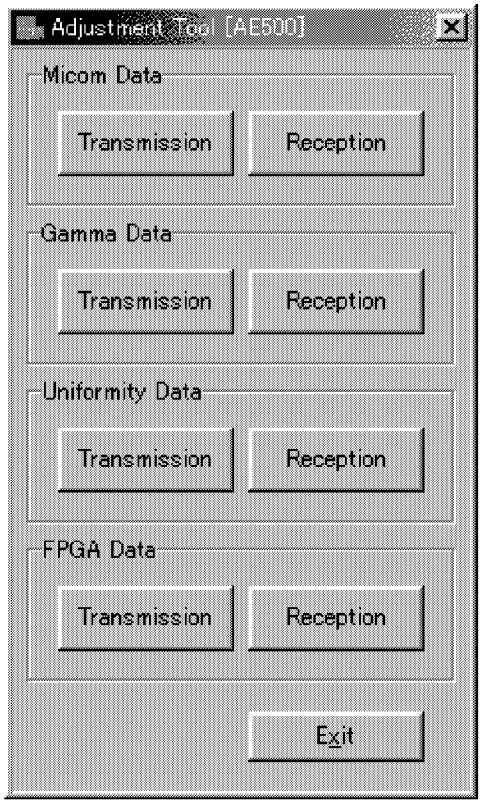
Adjustment:

Displays the adjustment menu.

Exit:

Exits this application.

7.5.4. Data Transmission/Reception Menu



7.5.4.1. Explanation of Buttons

Micom Data Transmission:

Reads the microcomputer data from the file and transmits it to the projector.

Micom Data Reception:

Receives the microcomputer data from the projector and writes it in the file.

Gamma Data Transmission:

Reads the gamma data from the file and transmits it to the projector.

Gamma Data Reception:

Receives the gamma data from the projector and writes it in the file.

Uniformity Data Transmission:

Reads the color unevenness correction data from the file

and transmits it to the projector.

Uniformity Data Reception:

Receives the color unevenness correction data from the projector and writes it in the file.

FPGA Data Transmission:

Reads the FPGA data from the file and transmits it to the projector.

FPGA Data Reception:

Receives the FPGA data from the projector and writes it in the file.

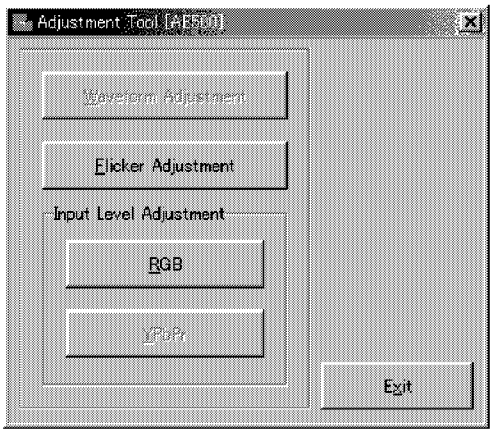
Exit:

Exits this application.

7.5.4.2. Receiving and sending of the data

Click a target button and specify a file name.

7.5.5. Adjustment Menu



7.5.5.1. Explanation of Buttons

Flicker Adjustment:

This button is not used.

Input Level Adjustment RGB:

Displays the input level adjustment (RGB) menu.

Exit:

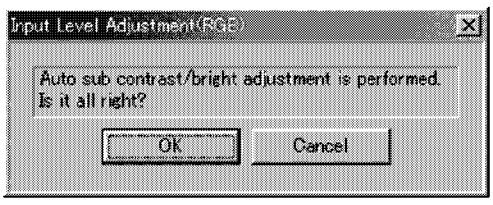
Exits this application.

7.6. Flicker Adjustment

According to the procedure of chapter 5 "Flicker Adjustment Mode", minimize the flicker.

7.7. Input Level Adjustment (RGB)

7.7.1. Adjustment Menu



7.7.2. Explanation of Buttons

OK:

Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

7.7.3. Equipment to be used

PC, RGB Signal Generator, Software for Adjustment

7.7.4. Adjustment Procedure

1. Display the input level adjustment (RGB) menu.
2. Input a window pattern signal to PC IN (RGB) connector.

   Note:

   - Use approx. 15 % window pattern as follows.

     Black background (screen width) : White window width = 2 : 1

     Black background (screen height) : White window height = 3 : 1
3. Click the OK button.

8 Troubleshooting

The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

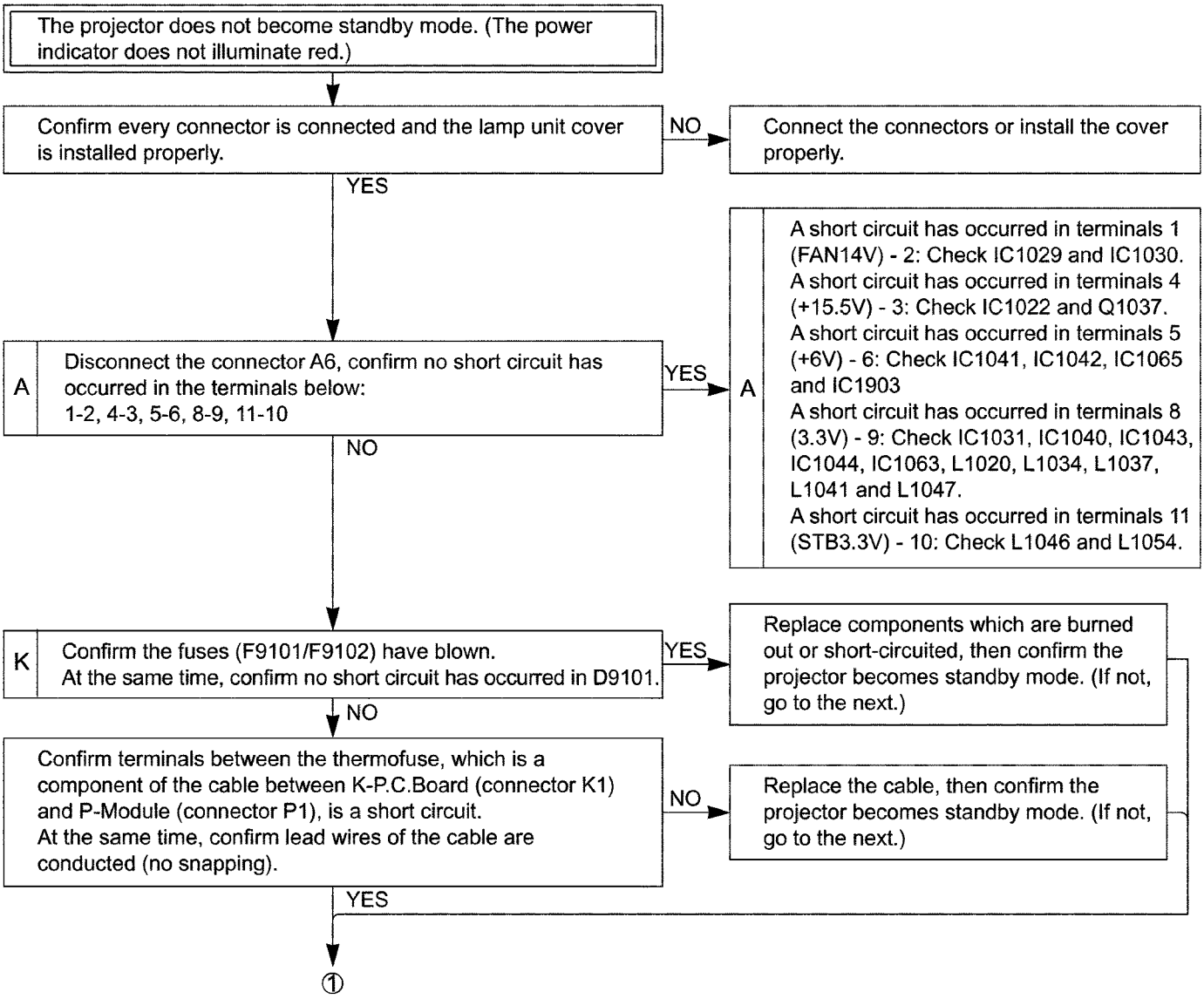
Note: A

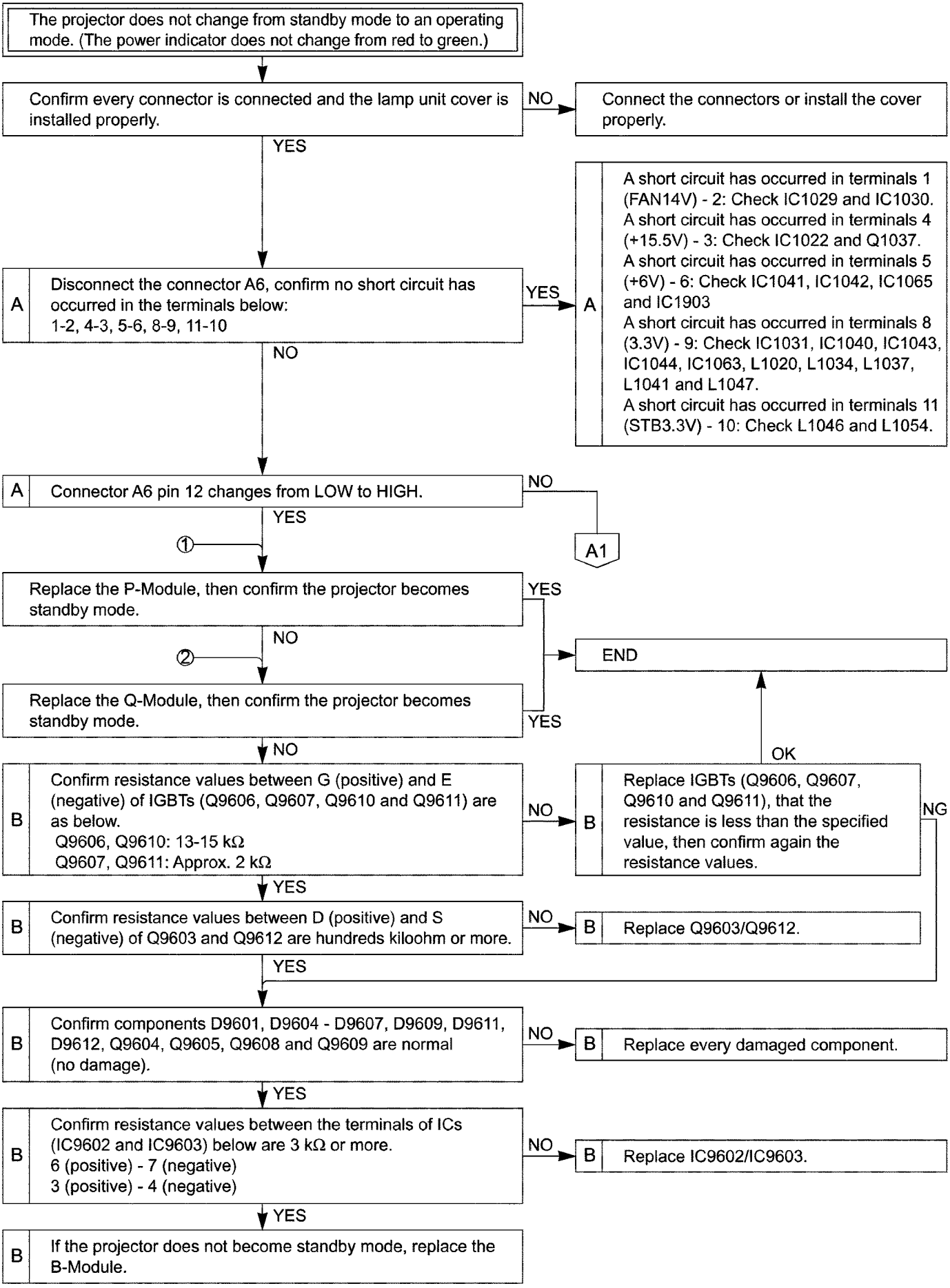
The letter of the alphabet indicates the P.C.Board or Module name.

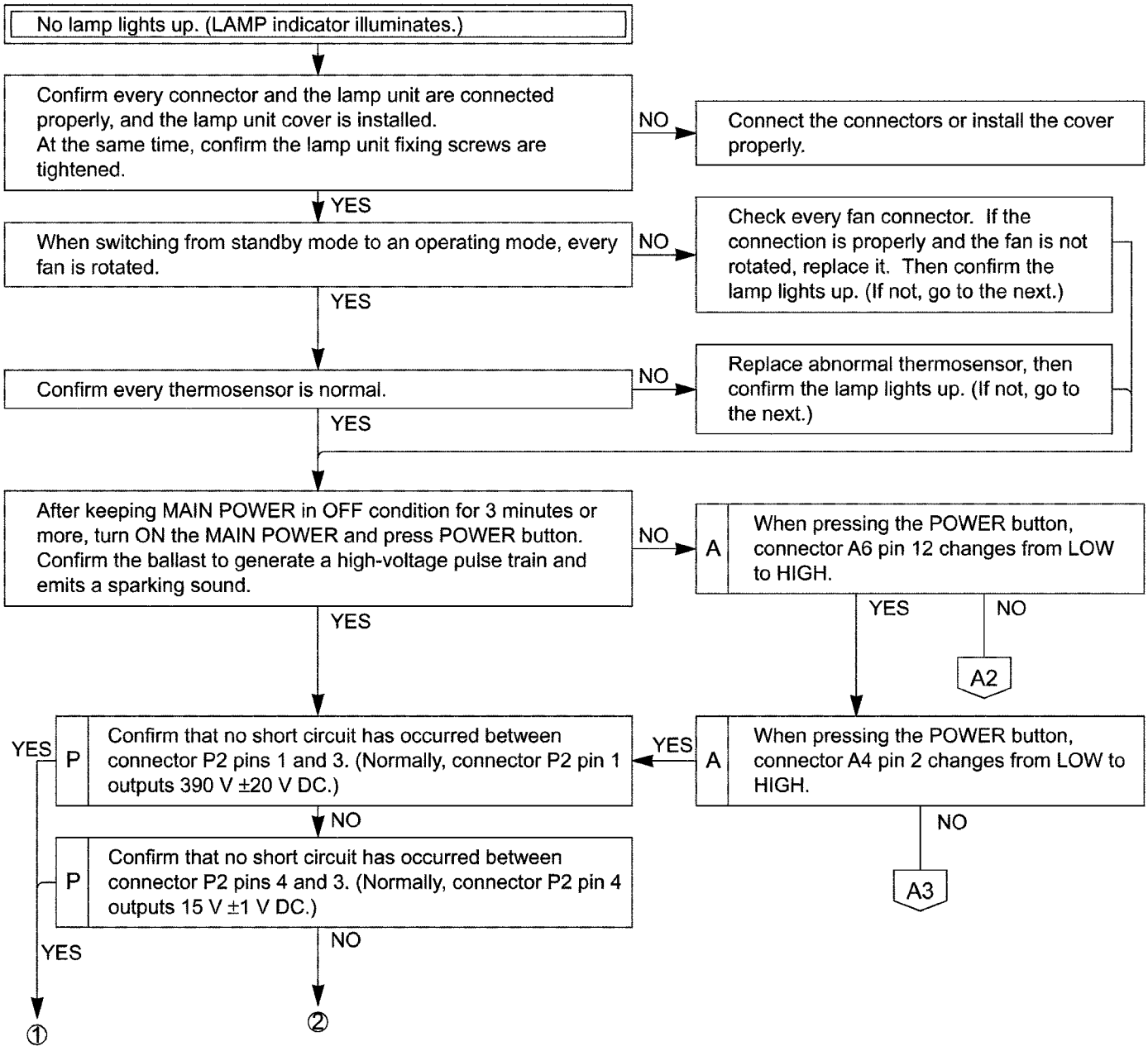
(Example) A: A-P.C.Board, B: B-Module

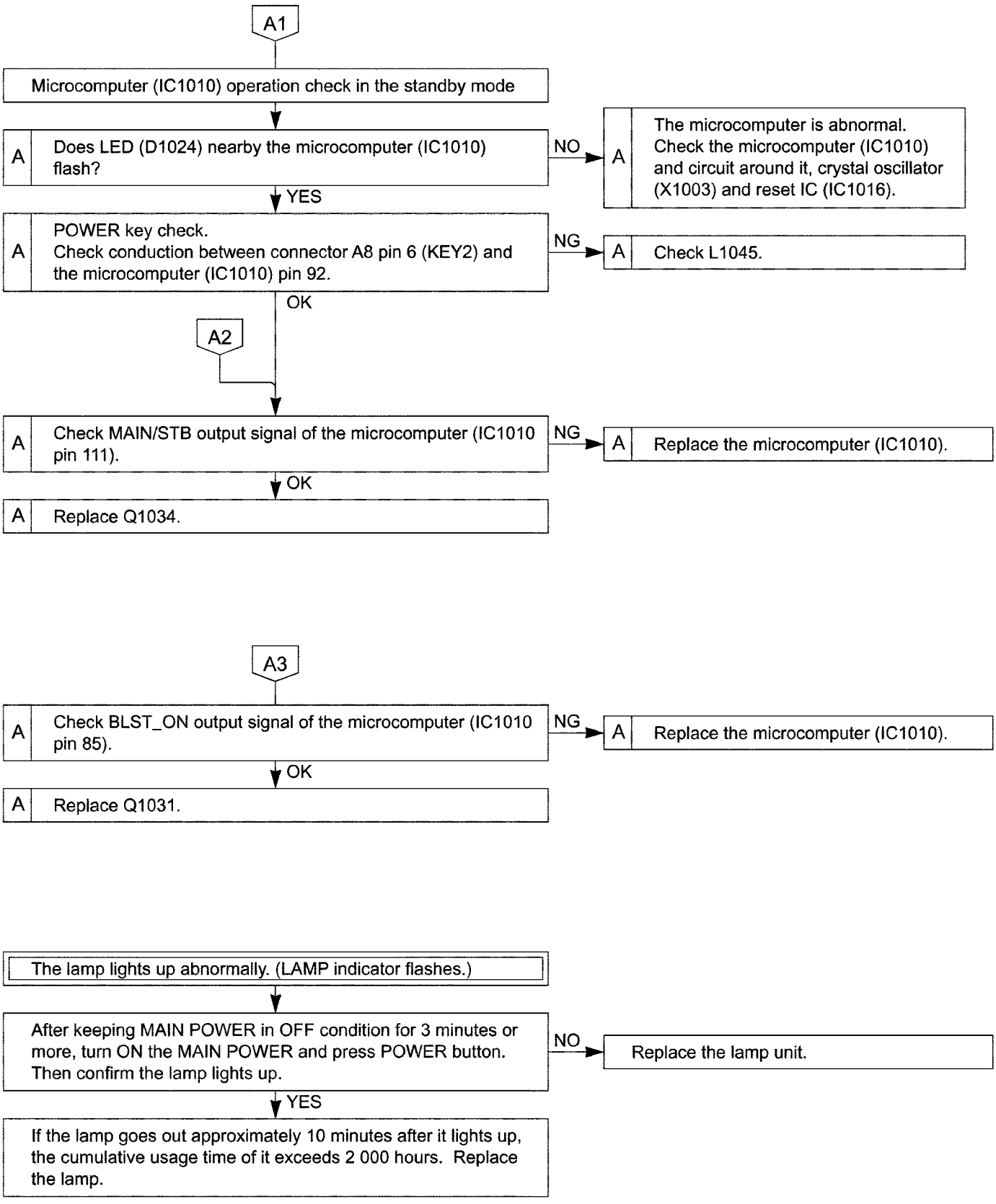
If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 7.5. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1011 and IC1017 from the old P.C.Board and install them on the new one.

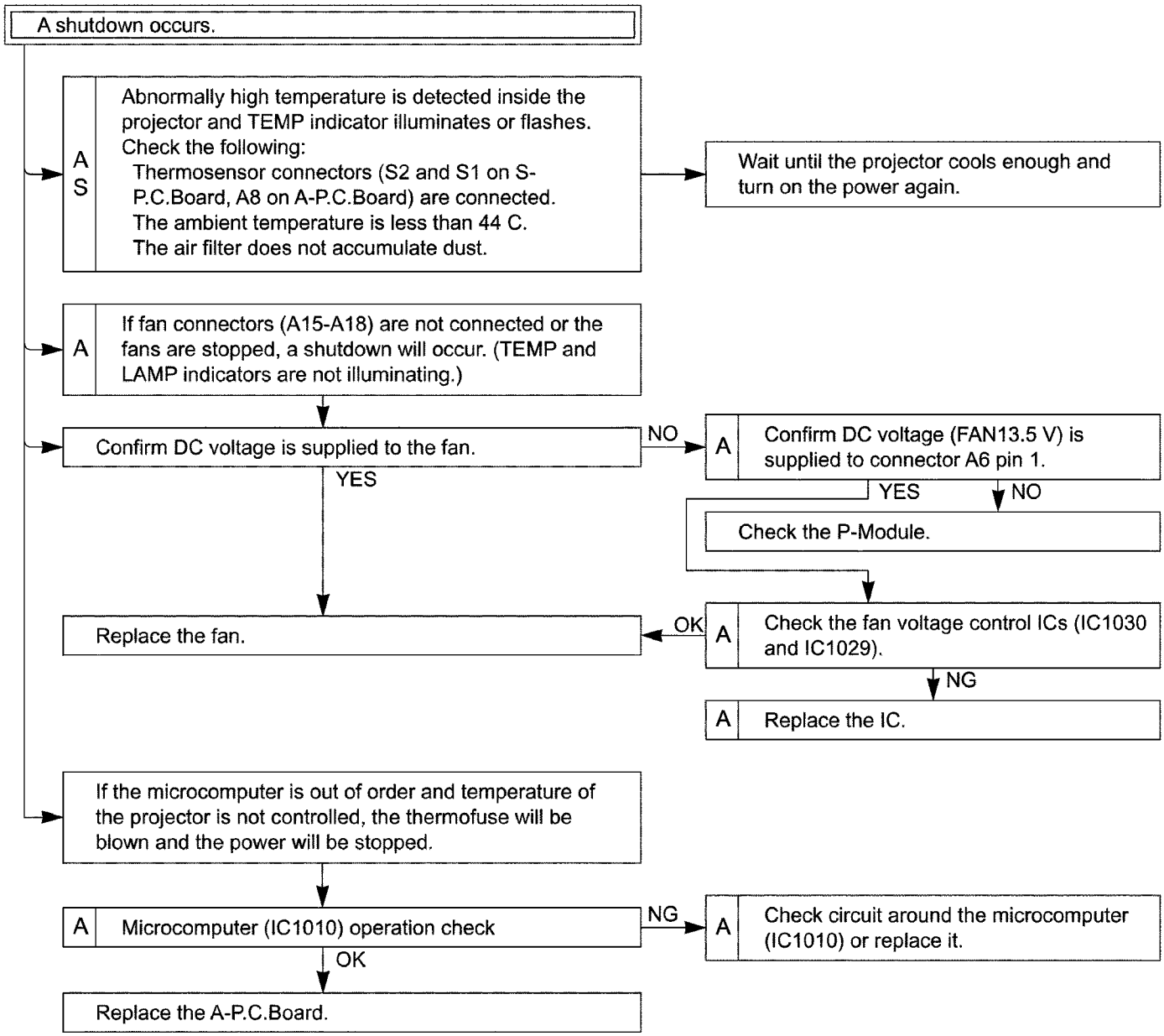
If replacing A-P.C.Board (assembly), adjust RGB Input Level according to the chapter 7.7. "Input Level Adjustment (RGB)".

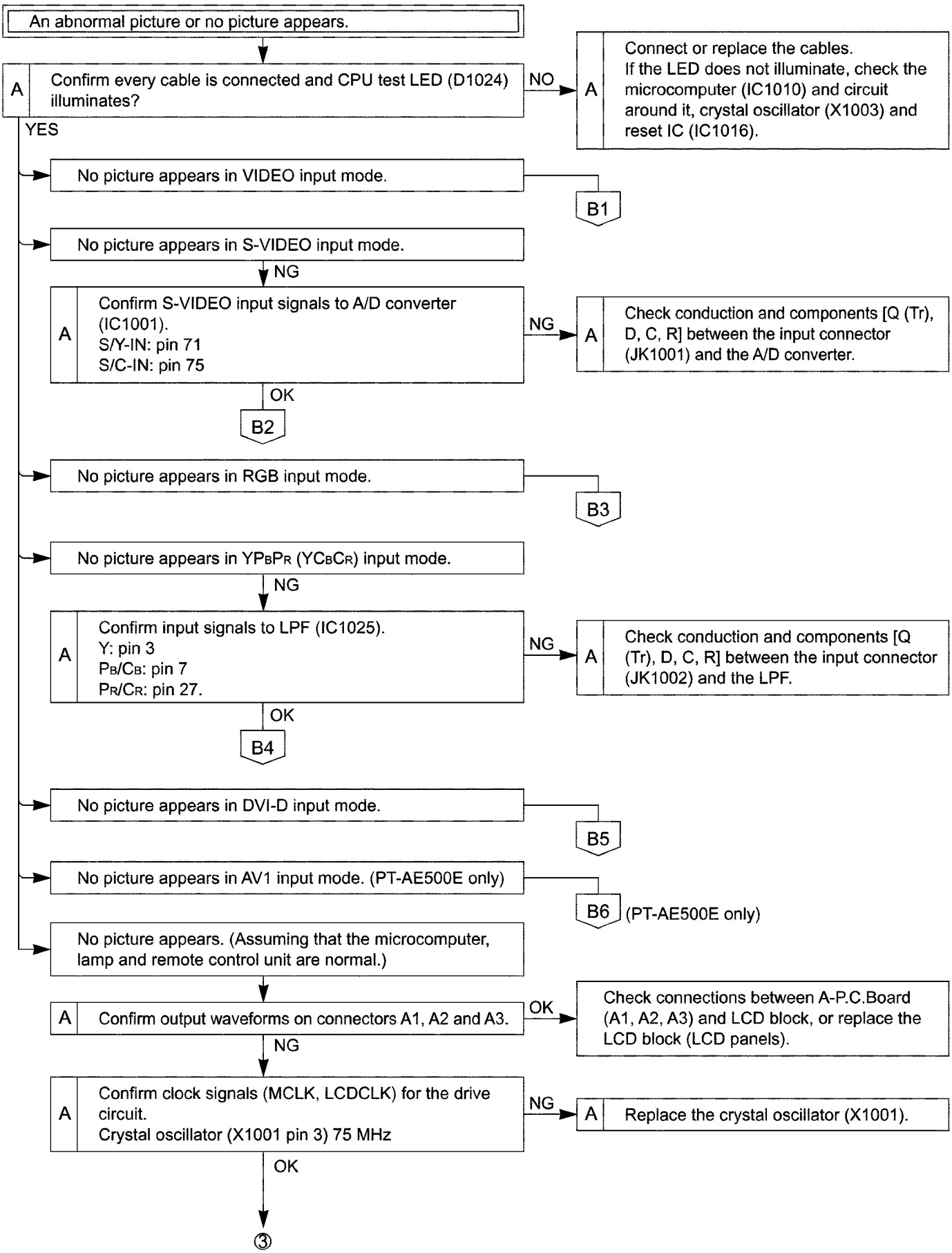

The projector does not become standby mode. (The power indicator does not illuminate red.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN14V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5V) - 3: Check IC1022 and Q1037.
A short circuit has occurred in terminals 5 (+6V) - 6: Check IC1041, IC1042, IC1065 and IC1903
A short circuit has occurred in terminals 8 (3.3V) - 9: Check IC1031, IC1040, IC1043, IC1044, IC1063, L1020, L1034, L1037, L1041 and L1047.
A short circuit has occurred in terminals 11 (STB3.3V) - 10: Check L1046 and L1054.
NO
K
Confirm the fuses (F9101/F9102) have blown.
At the same time, confirm no short circuit has occurred in D9101.
YES
Replace components which are burned out or short-circuited, then confirm the projector becomes standby mode. (If not, go to the next.)
NO
Confirm terminals between the thermofuse, which is a component of the cable between K-P.C.Board (connector K1) and P-Module (connector P1), is a short circuit.
At the same time, confirm lead wires of the cable are conducted (no snapping).
NO
Replace the cable, then confirm the projector becomes standby mode. (If not, go to the next.)
YES
①

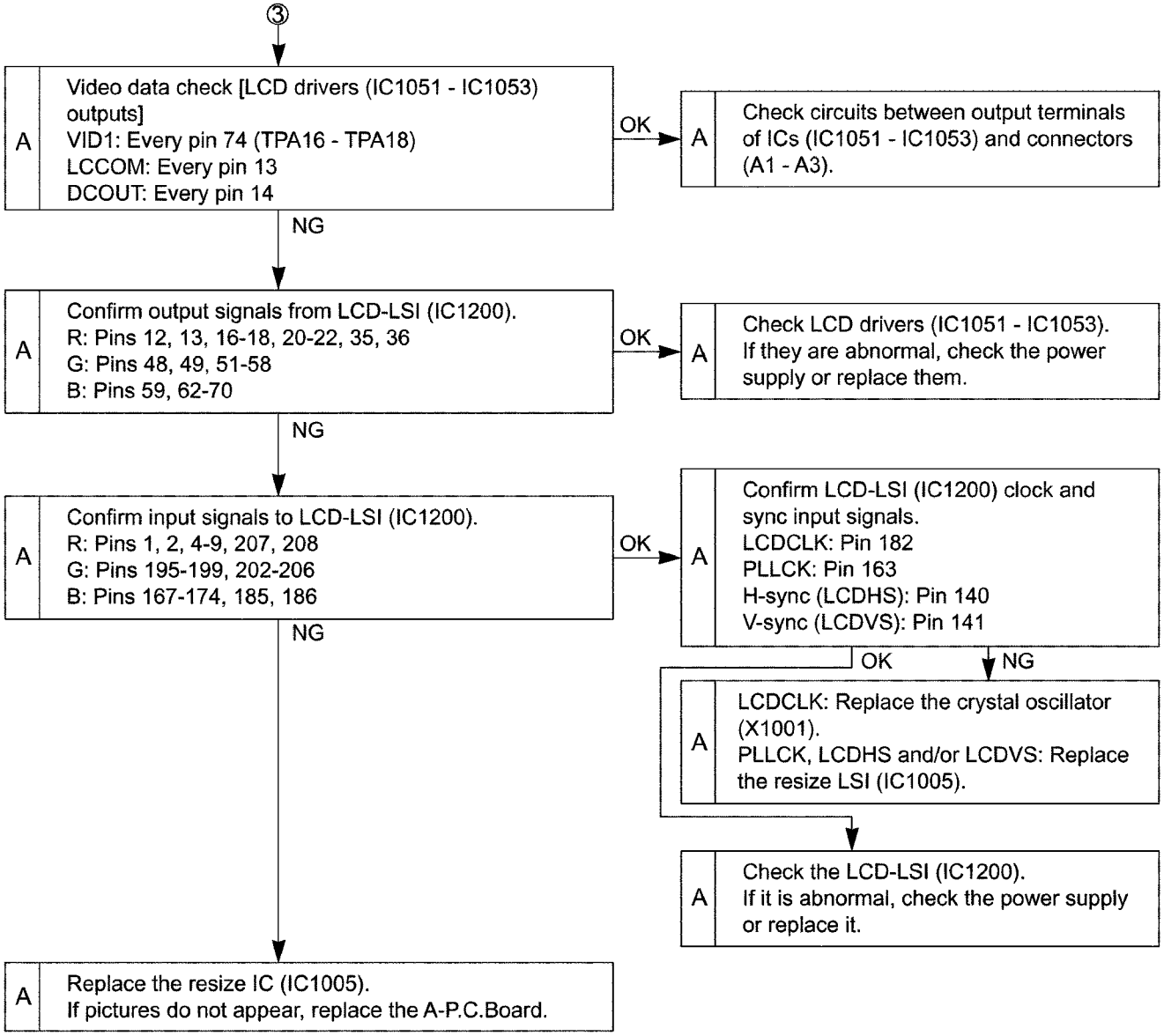

The projector does not change from standby mode to an operating mode. (The power indicator does not change from red to green.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN14V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5V) - 3: Check IC1022 and Q1037.
A short circuit has occurred in terminals 5 (+6V) - 6: Check IC1041, IC1042, IC1065 and IC1903
A short circuit has occurred in terminals 8 (3.3V) - 9: Check IC1031, IC1040, IC1043, IC1044, IC1063, L1020, L1034, L1037, L1041 and L1047.
A short circuit has occurred in terminals 11 (STB3.3V) - 10: Check L1046 and L1054.
NO
A
Connector A6 pin 12 changes from LOW to HIGH.
NO
YES
A1
①
Replace the P-Module, then confirm the projector becomes standby mode.
YES
NO
END
②
Replace the Q-Module, then confirm the projector becomes standby mode.
YES
NO
OK
B
Confirm resistance values between G (positive) and E (negative) of IGBTs (Q9606, Q9607, Q9610 and Q9611) are as below.
Q9606, Q9610: 13-15 kΩ
Q9607, Q9611: Approx. 2 kΩ
NO
B
Replace IGBTs (Q9606, Q9607, Q9610 and Q9611), that the resistance is less than the specified value, then confirm again the resistance values.
NG
YES
B
Confirm resistance values between D (positive) and S (negative) of Q9603 and Q9612 are hundreds kiloohm or more.
NO
B
Replace Q9603/Q9612.
YES
B
Confirm components D9601, D9604 - D9607, D9609, D9611, D9612, Q9604, Q9605, Q9608 and Q9609 are normal (no damage).
NO
B
Replace every damaged component.
YES
B
Confirm resistance values between the terminals of ICs (IC9602 and IC9603) below are 3 kΩ or more.
6 (positive) - 7 (negative)
3 (positive) - 4 (negative)
NO
B
Replace IC9602/IC9603.
YES
B
If the projector does not become standby mode, replace the B-Module.

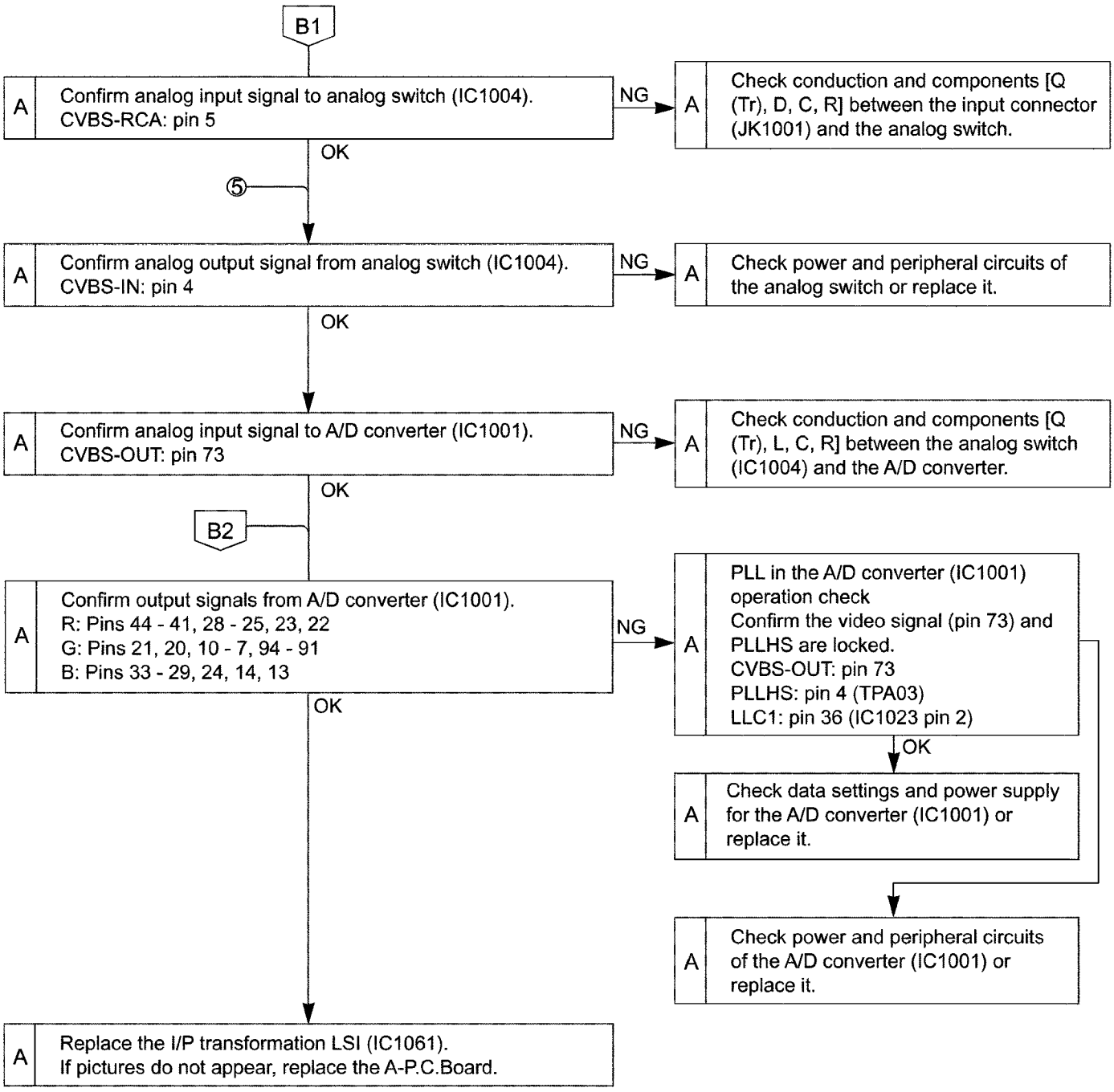

No lamp lights up. (LAMP indicator illuminates.)
Confirm every connector and the lamp unit are connected properly, and the lamp unit cover is installed.
At the same time, confirm the lamp unit fixing screws are tightened.
NO
Connect the connectors or install the cover properly.
YES
When switching from standby mode to an operating mode, every fan is rotated.
NO
Check every fan connector. If the connection is properly and the fan is not rotated, replace it. Then confirm the lamp lights up. (If not, go to the next.)
YES
Confirm every thermosensor is normal.
NO
Replace abnormal thermosensor, then confirm the lamp lights up. (If not, go to the next.)
YES
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Confirm the ballast to generate a high-voltage pulse train and emits a sparking sound.
NO
A
When pressing the POWER button, connector A6 pin 12 changes from LOW to HIGH.
YES
NO
A2
YES
P
Confirm that no short circuit has occurred between connector P2 pins 1 and 3. (Normally, connector P2 pin 1 outputs 390 V ±20 V DC.)
YES
A
When pressing the POWER button, connector A4 pin 2 changes from LOW to HIGH.
NO
A3
NO
P
Confirm that no short circuit has occurred between connector P2 pins 4 and 3. (Normally, connector P2 pin 4 outputs 15 V ±1 V DC.)
YES
NO
①
②

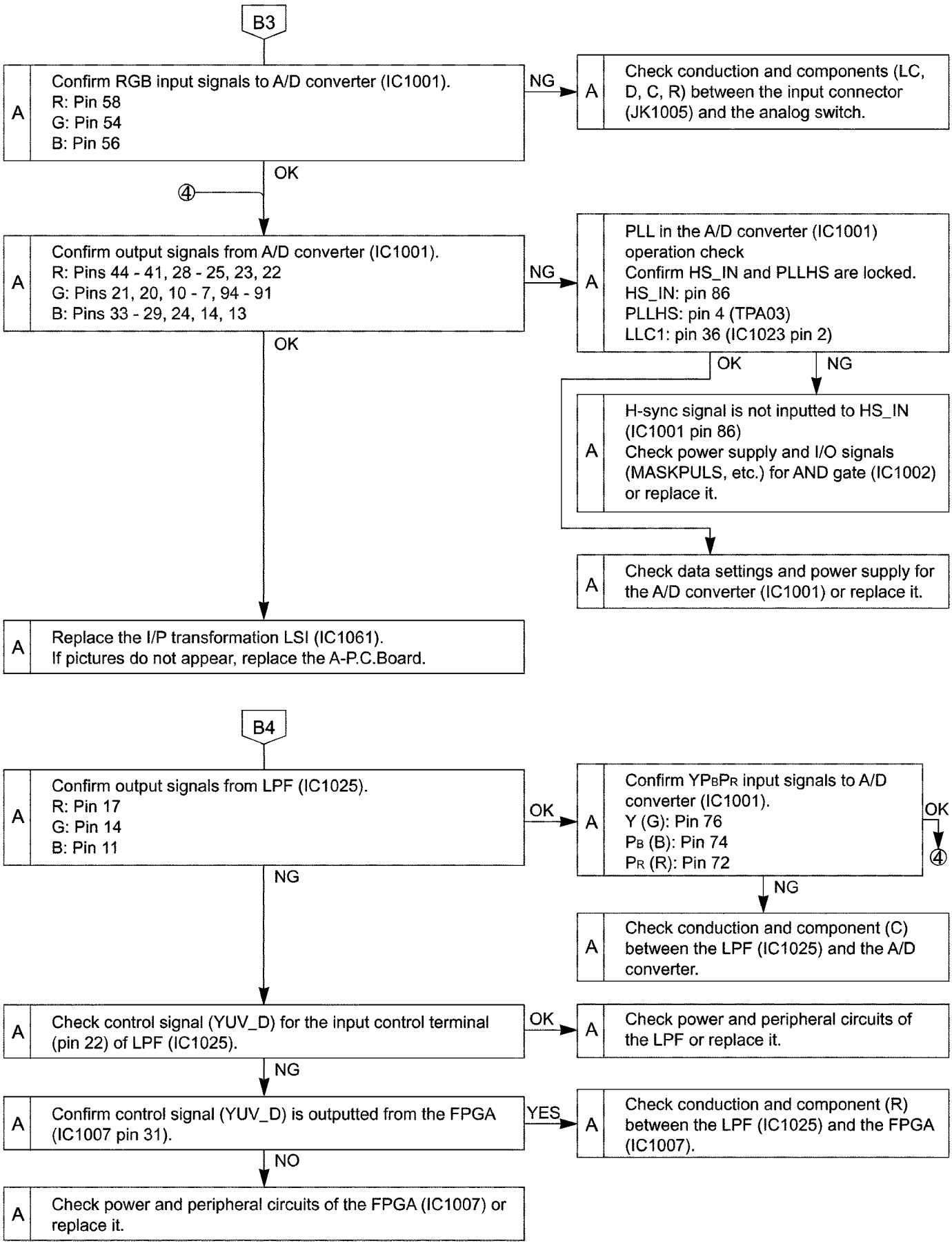

A1
Microcomputer (IC1010) operation check in the standby mode
A
Does LED (D1024) nearby the microcomputer (IC1010) flash?
NO
A
The microcomputer is abnormal. Check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
A
POWER key check. Check conduction between connector A8 pin 6 (KEY2) and the microcomputer (IC1010) pin 92.
NG
A
Check L1045.
OK
A2
A
Check MAIN/STB output signal of the microcomputer (IC1010 pin 111).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1034.
A3
A
Check BLST_ON output signal of the microcomputer (IC1010 pin 85).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1031.
The lamp lights up abnormally. (LAMP indicator flashes.)
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Then confirm the lamp lights up.
NO
Replace the lamp unit.
YES
If the lamp goes out approximately 10 minutes after it lights up, the cumulative usage time of it exceeds 2 000 hours. Replace the lamp.

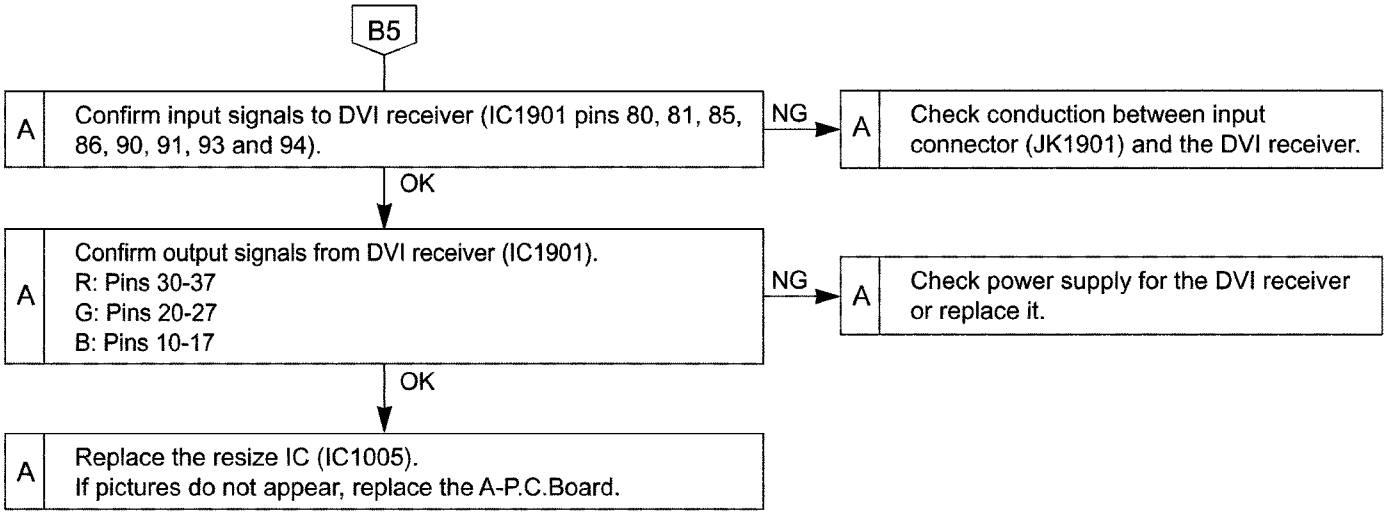

A shutdown occurs.
A S
Abnormally high temperature is detected inside the projector and TEMP indicator illuminates or flashes.
Check the following:
Thermosensor connectors (S2 and S1 on S-P.C.Board, A8 on A-P.C.Board) are connected.
The ambient temperature is less than 44 C.
The air filter does not accumulate dust.
Wait until the projector cools enough and turn on the power again.
A
If fan connectors (A15-A18) are not connected or the fans are stopped, a shutdown will occur. (TEMP and LAMP indicators are not illuminating.)
Confirm DC voltage is supplied to the fan.
NO
A
Confirm DC voltage (FAN13.5 V) is supplied to connector A6 pin 1.
YES
NO
Check the P-Module.
YES
Replace the fan.
OK
A
Check the fan voltage control ICs (IC1030 and IC1029).
NG
A
Replace the IC.
If the microcomputer is out of order and temperature of the projector is not controlled, the thermofuse will be blown and the power will be stopped.
A
Microcomputer (IC1010) operation check
NG
A
Check circuit around the microcomputer (IC1010) or replace it.
OK
Replace the A-P.C.Board.

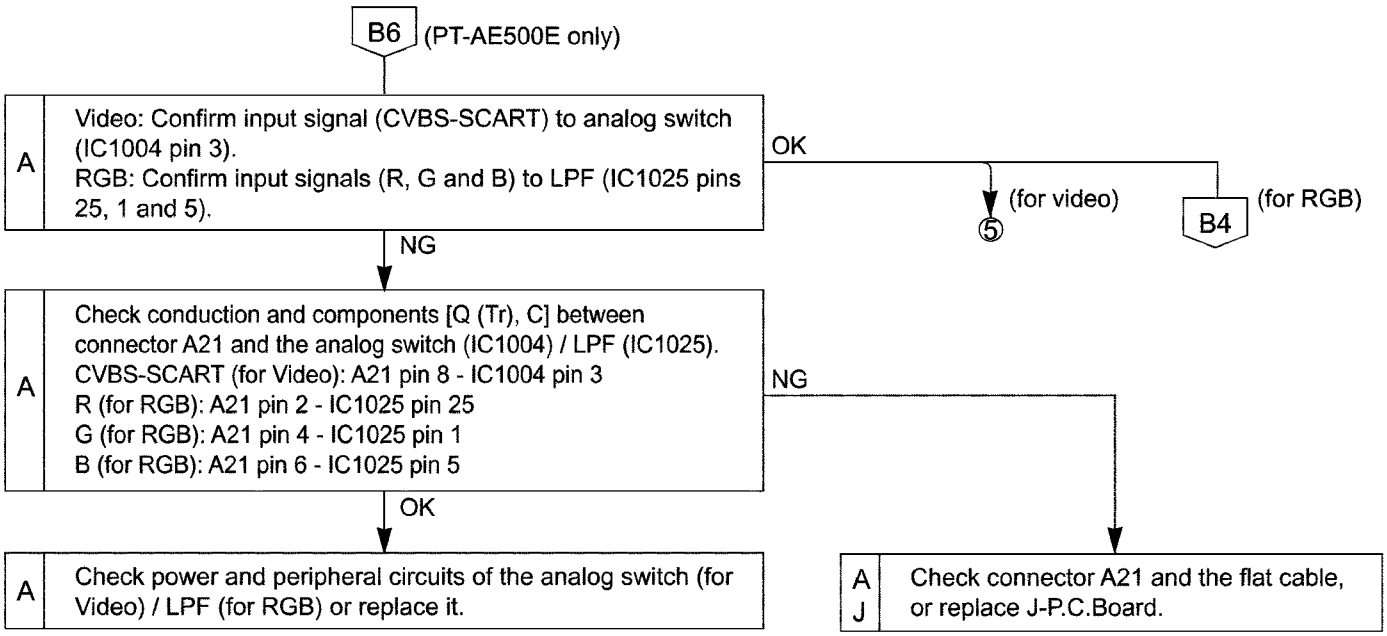

An abnormal picture or no picture appears.
A
Confirm every cable is connected and CPU test LED (D1024) illuminates?
NO
A
Connect or replace the cables.
If the LED does not illuminate, check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
No picture appears in VIDEO input mode.
B1
No picture appears in S-VIDEO input mode.
NG
A
Confirm S-VIDEO input signals to A/D converter (IC1001).
S/Y-IN: pin 71
S/C-IN: pin 75
NG
A
Check conduction and components [Q (Tr), D, C, R] between the input connector (JK1001) and the A/D converter.
OK
B2
No picture appears in RGB input mode.
B3
No picture appears in YPBPR (YCBCR) input mode.
NG
A
Confirm input signals to LPF (IC1025).
Y: pin 3
PB/CB: pin 7
PR/CR: pin 27.
NG
A
Check conduction and components [Q (Tr), D, C, R] between the input connector (JK1002) and the LPF.
OK
B4
No picture appears in DVI-D input mode.
B5
No picture appears in AV1 input mode. (PT-AE500E only)
B6
(PT-AE500E only)
No picture appears. (Assuming that the microcomputer, lamp and remote control unit are normal.)
A
Confirm output waveforms on connectors A1, A2 and A3.
OK
Check connections between A-P.C.Board (A1, A2, A3) and LCD block, or replace the LCD block (LCD panels).
NG
A
Confirm clock signals (MCLK, LCDCLK) for the drive circuit.
Crystal oscillator (X1001 pin 3) 75 MHz
NG
A
Replace the crystal oscillator (X1001).
OK
③

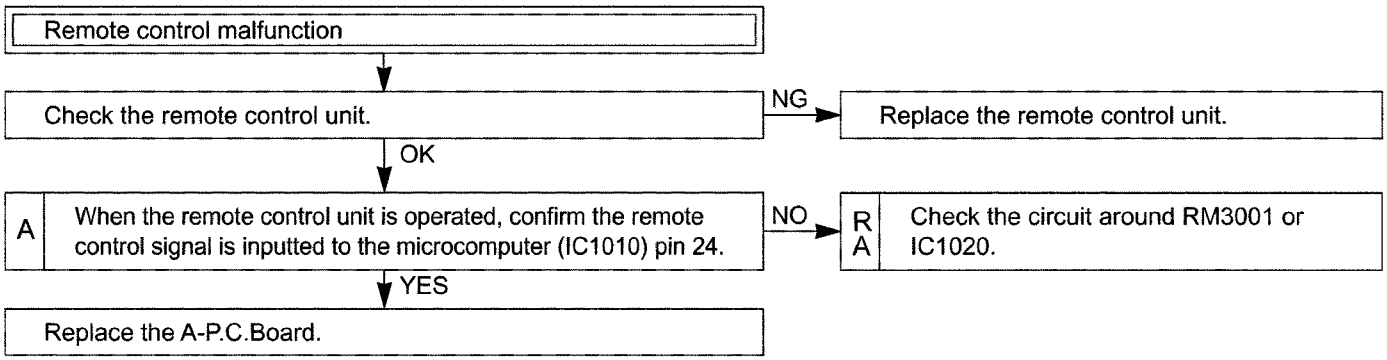

③
A
Video data check [LCD drivers (IC1051 - IC1053) outputs]
VID1: Every pin 74 (TPA16 - TPA18)
LCCOM: Every pin 13
DCOUT: Every pin 14
OK
A
Check circuits between output terminals of ICs (IC1051 - IC1053) and connectors (A1 - A3).
NG
A
Confirm output signals from LCD-LSI (IC1200).
R: Pins 12, 13, 16-18, 20-22, 35, 36
G: Pins 48, 49, 51-58
B: Pins 59, 62-70
OK
A
Check LCD drivers (IC1051 - IC1053).
If they are abnormal, check the power supply or replace them.
NG
A
Confirm input signals to LCD-LSI (IC1200).
R: Pins 1, 2, 4-9, 207, 208
G: Pins 195-199, 202-206
B: Pins 167-174, 185, 186
OK
A
Confirm LCD-LSI (IC1200) clock and sync input signals.
LCDCLK: Pin 182
PLLCK: Pin 163
H-sync (LCDHS): Pin 140
V-sync (LCDVS): Pin 141
OK
NG
A
LCDCLK: Replace the crystal oscillator (X1001).
PLLCK, LCDHS and/or LCDVS: Replace the resize LSI (IC1005).
A
Check the LCD-LSI (IC1200).
If it is abnormal, check the power supply or replace it.
NG
A
Replace the resize IC (IC1005).
If pictures do not appear, replace the A-P.C.Board.


B1
A
Confirm analog input signal to analog switch (IC1004).
CVBS-RCA: pin 5
NG
A
Check conduction and components [Q (Tr), D, C, R] between the input connector (JK1001) and the analog switch.
OK
⑤
A
Confirm analog output signal from analog switch (IC1004).
CVBS-IN: pin 4
NG
A
Check power and peripheral circuits of the analog switch or replace it.
OK
A
Confirm analog input signal to A/D converter (IC1001).
CVBS-OUT: pin 73
NG
A
Check conduction and components [Q (Tr), L, C, R] between the analog switch (IC1004) and the A/D converter.
OK
B2
A
Confirm output signals from A/D converter (IC1001).
R: Pins 44 - 41, 28 - 25, 23, 22
G: Pins 21, 20, 10 - 7, 94 - 91
B: Pins 33 - 29, 24, 14, 13
NG
A
PLL in the A/D converter (IC1001) operation check
Confirm the video signal (pin 73) and PLLHS are locked.
CVBS-OUT: pin 73
PLLHS: pin 4 (TPA03)
LLC1: pin 36 (IC1023 pin 2)
OK
A
Check data settings and power supply for the A/D converter (IC1001) or replace it.
A
Check power and peripheral circuits of the A/D converter (IC1001) or replace it.
OK
A
Replace the I/P transformation LSI (IC1061).
If pictures do not appear, replace the A-P.C.Board.


B3
A
Confirm RGB input signals to A/D converter (IC1001).
R: Pin 58
G: Pin 54
B: Pin 56
NG
A
Check conduction and components (LC, D, C, R) between the input connector (JK1005) and the analog switch.
OK
④
A
Confirm output signals from A/D converter (IC1001).
R: Pins 44 - 41, 28 - 25, 23, 22
G: Pins 21, 20, 10 - 7, 94 - 91
B: Pins 33 - 29, 24, 14, 13
NG
A
PLL in the A/D converter (IC1001) operation check
Confirm HS_IN and PLLHS are locked.
HS_IN: pin 86
PLLHS: pin 4 (TPA03)
LLC1: pin 36 (IC1023 pin 2)
OK
NG
A
H-sync signal is not inputted to HS_IN (IC1001 pin 86)
Check power supply and I/O signals (MASKPULS, etc.) for AND gate (IC1002) or replace it.
A
Check data settings and power supply for the A/D converter (IC1001) or replace it.
OK
A
Replace the I/P transformation LSI (IC1061).
If pictures do not appear, replace the A-P.C.Board.
B4
A
Confirm output signals from LPF (IC1025).
R: Pin 17
G: Pin 14
B: Pin 11
OK
A
Confirm YPBPR input signals to A/D converter (IC1001).
Y (G): Pin 76
PB (B): Pin 74
PR (R): Pin 72
OK
④
NG
A
Check conduction and component (C) between the LPF (IC1025) and the A/D converter.
NG
A
Check control signal (YUV_D) for the input control terminal (pin 22) of LPF (IC1025).
OK
A
Check power and peripheral circuits of the LPF or replace it.
NG
A
Confirm control signal (YUV_D) is outputted from the FPGA (IC1007 pin 31).
YES
A
Check conduction and component (R) between the LPF (IC1025) and the FPGA (IC1007).
NO
A
Check power and peripheral circuits of the FPGA (IC1007) or replace it.


B5
A
Confirm input signals to DVI receiver (IC1901 pins 80, 81, 85, 86, 90, 91, 93 and 94).
NG
A
Check conduction between input connector (JK1901) and the DVI receiver.
OK
A
Confirm output signals from DVI receiver (IC1901).
R: Pins 30-37
G: Pins 20-27
B: Pins 10-17
NG
A
Check power supply for the DVI receiver or replace it.
OK
A
Replace the resize IC (IC1005).
If pictures do not appear, replace the A-P.C.Board.

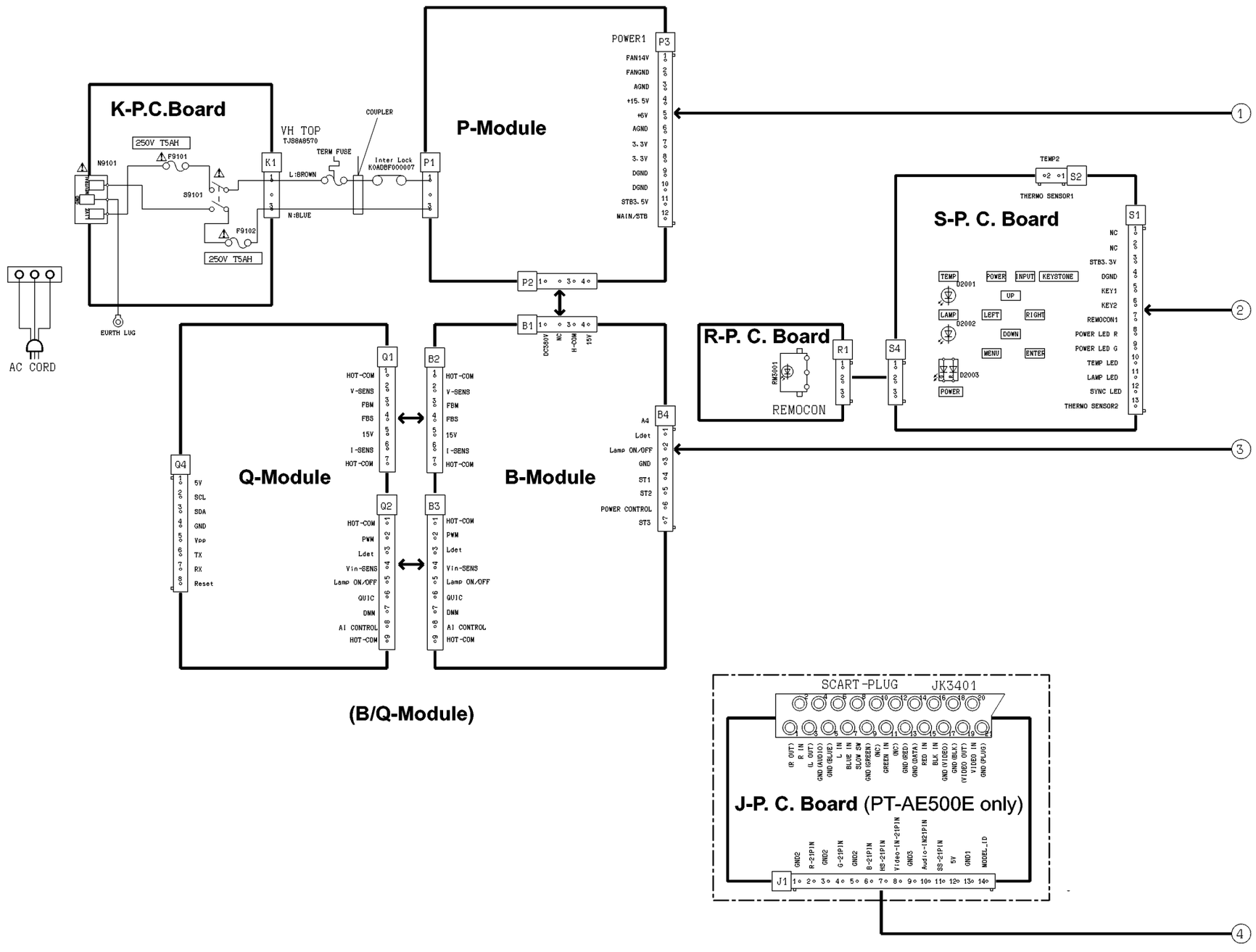

B6
(PT-AE500E only)
A
Video: Confirm input signal (CVBS-SCART) to analog switch (IC1004 pin 3).
RGB: Confirm input signals (R, G and B) to LPF (IC1025 pins 25, 1 and 5).
OK
(for video)
⑤
(for RGB)
B4
NG
A
Check conduction and components [Q (Tr), C] between connector A21 and the analog switch (IC1004) / LPF (IC1025).
CVBS-SCART (for Video): A21 pin 8 - IC1004 pin 3
R (for RGB): A21 pin 2 - IC1025 pin 25
G (for RGB): A21 pin 4 - IC1025 pin 1
B (for RGB): A21 pin 6 - IC1025 pin 5
NG
OK
A
Check power and peripheral circuits of the analog switch (for Video) / LPF (for RGB) or replace it.
A
J
Check connector A21 and the flat cable, or replace J-P.C.Board.


Remote control malfunction
Check the remote control unit.
NG
Replace the remote control unit.
OK
A
When the remote control unit is operated, confirm the remote control signal is inputted to the microcomputer (IC1010) pin 24.
NO
R
A
Check the circuit around RM3001 or IC1020.
YES
Replace the A-P.C.Board.

9 Interconnection Block Diagram

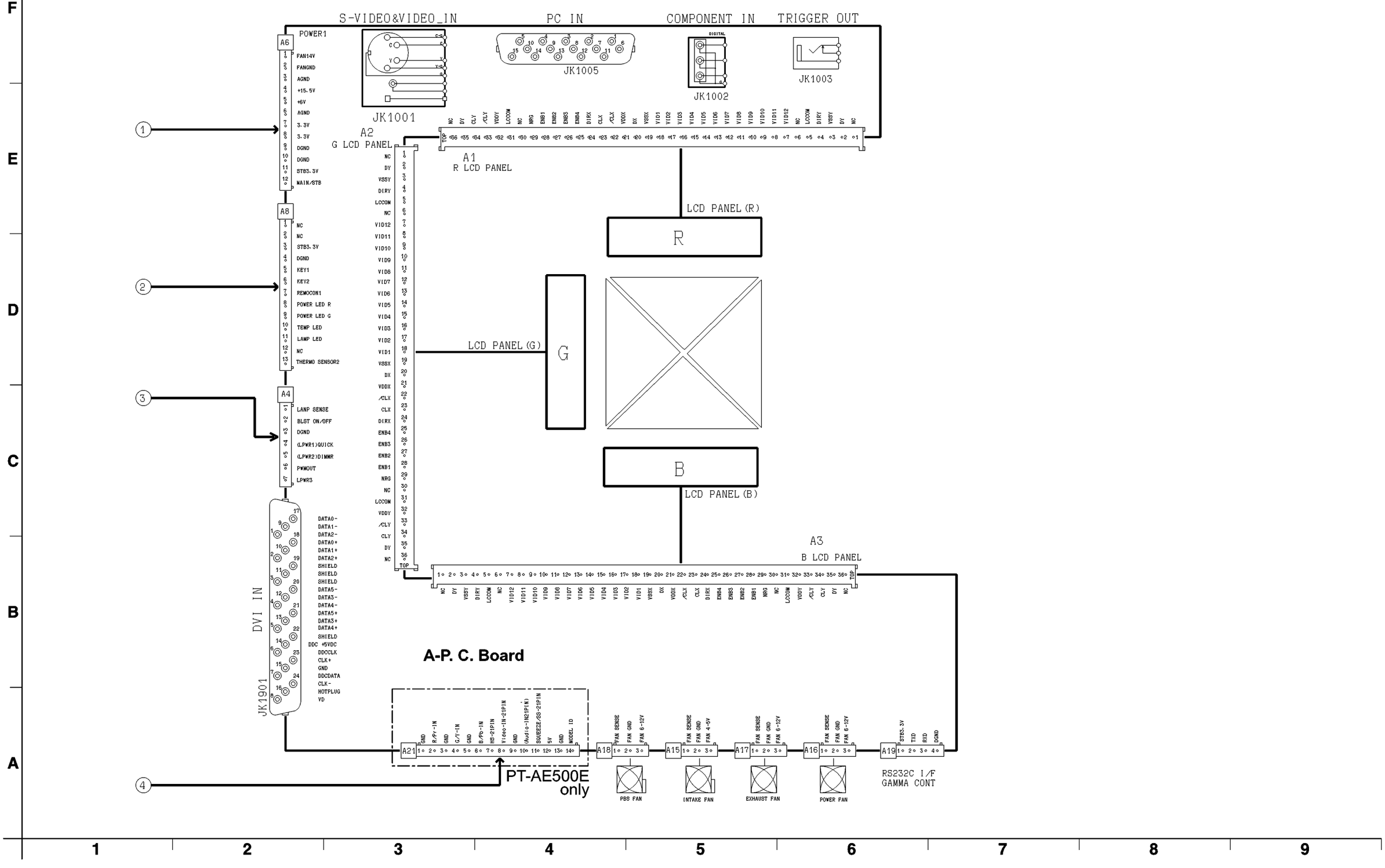
9.1. Interconnection Block Diagram (1/2)

Interconnection Block Diagram (1/2)



9.2. Interconnection Block Diagram (2/2)

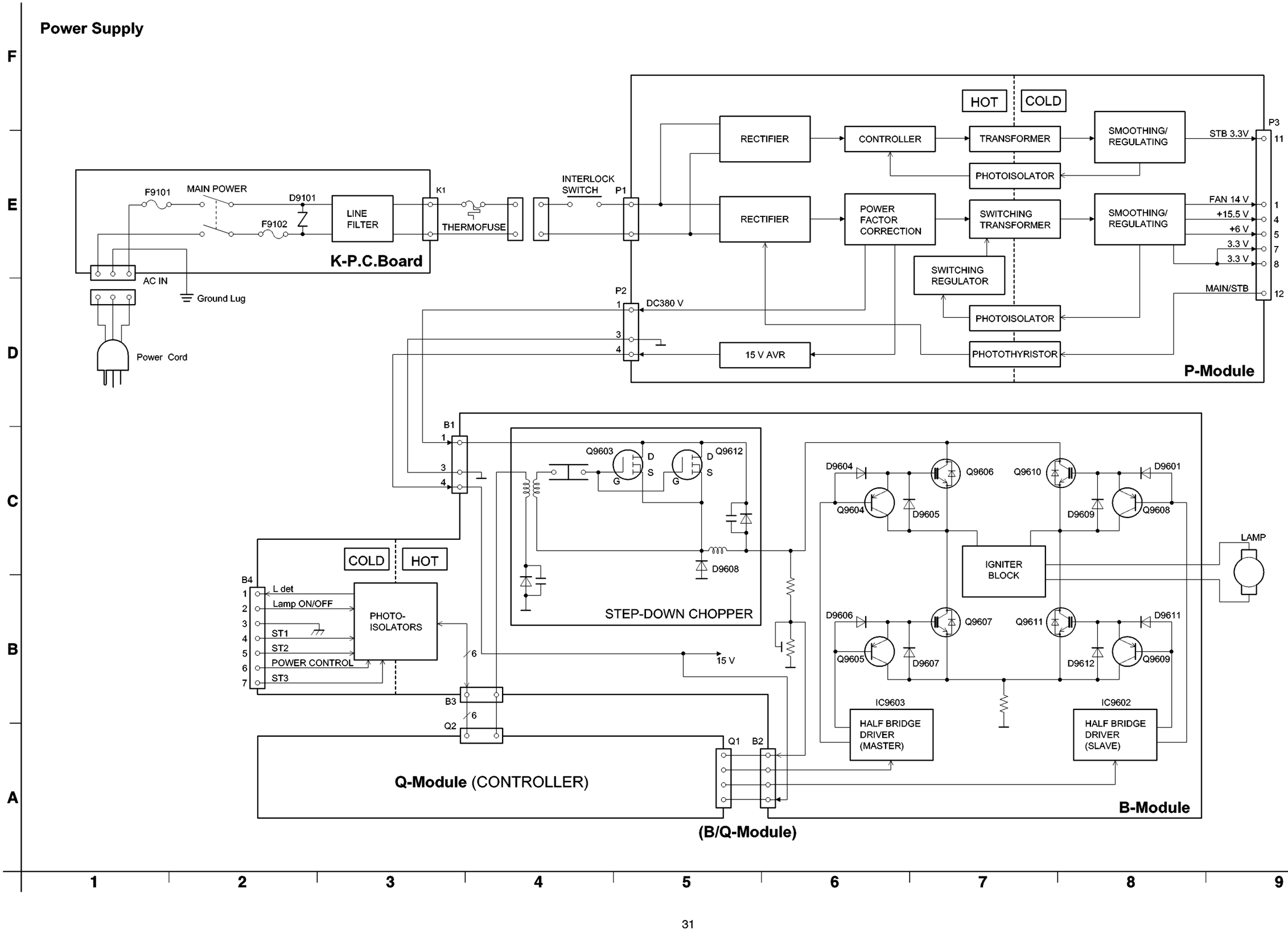
Interconnection Block Diagram (2/2)



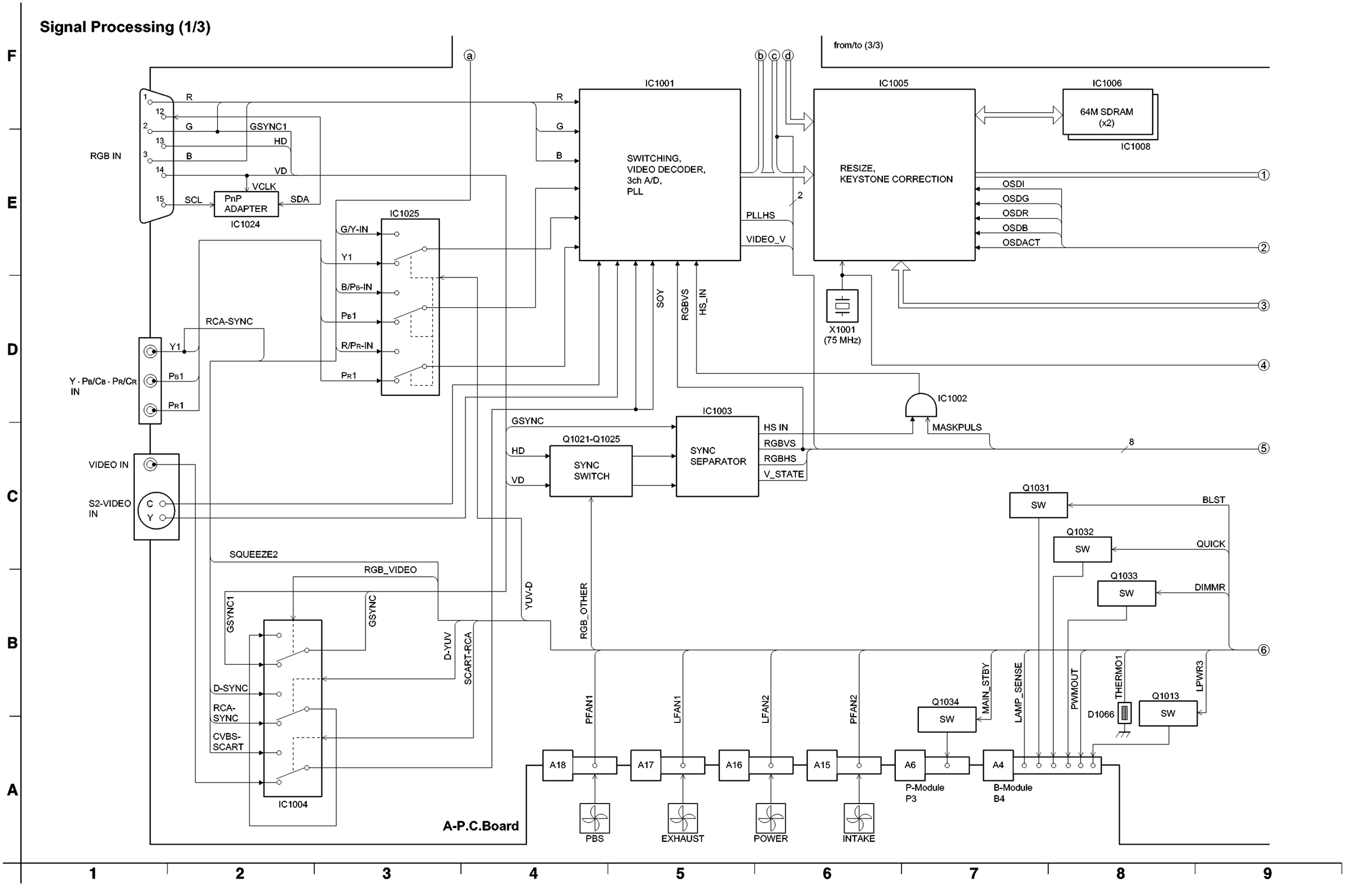
10 Block Diagram

10.1. Power Supply

Power Supply

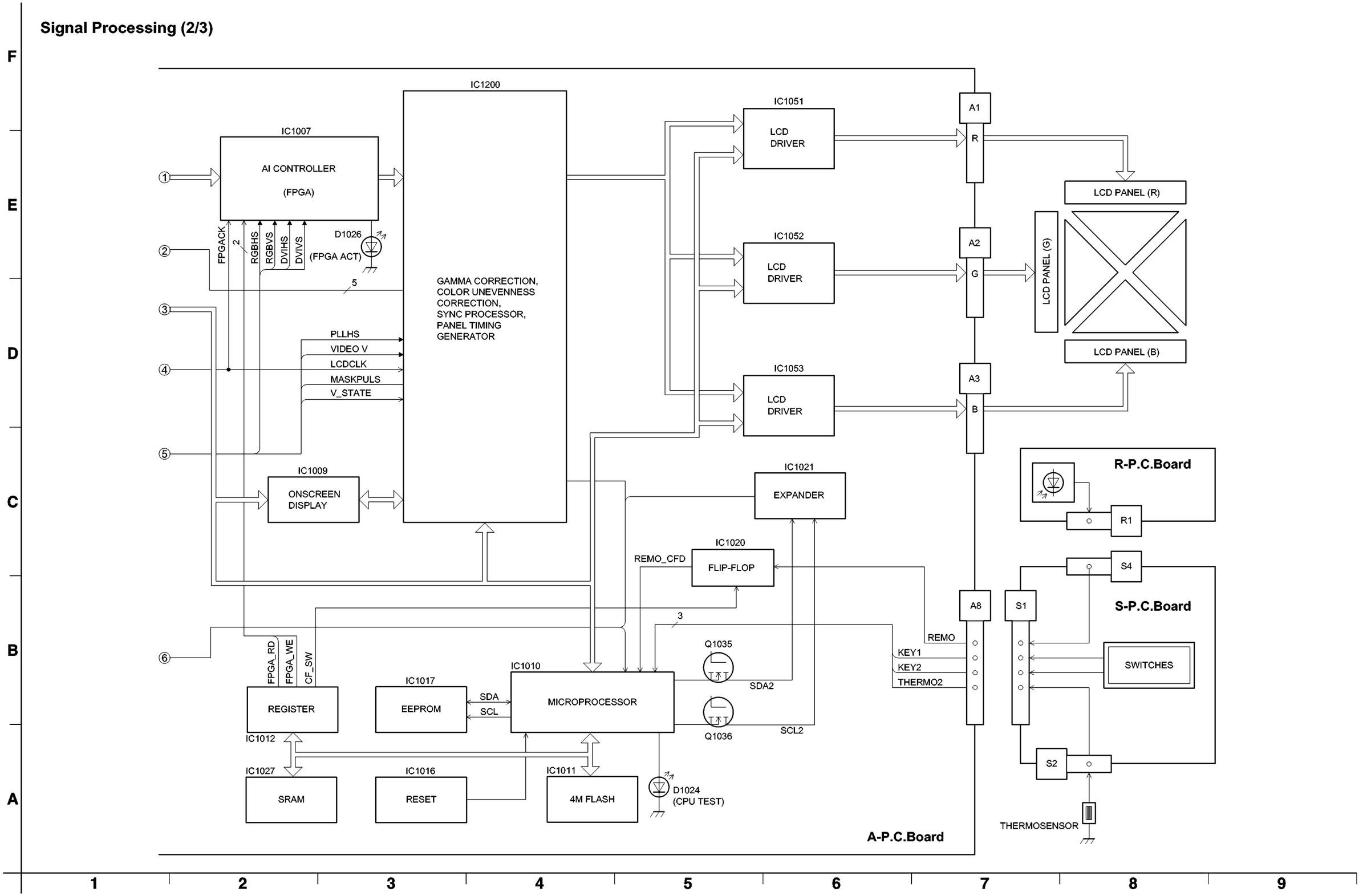


10.2. Signal Processing (1/3)

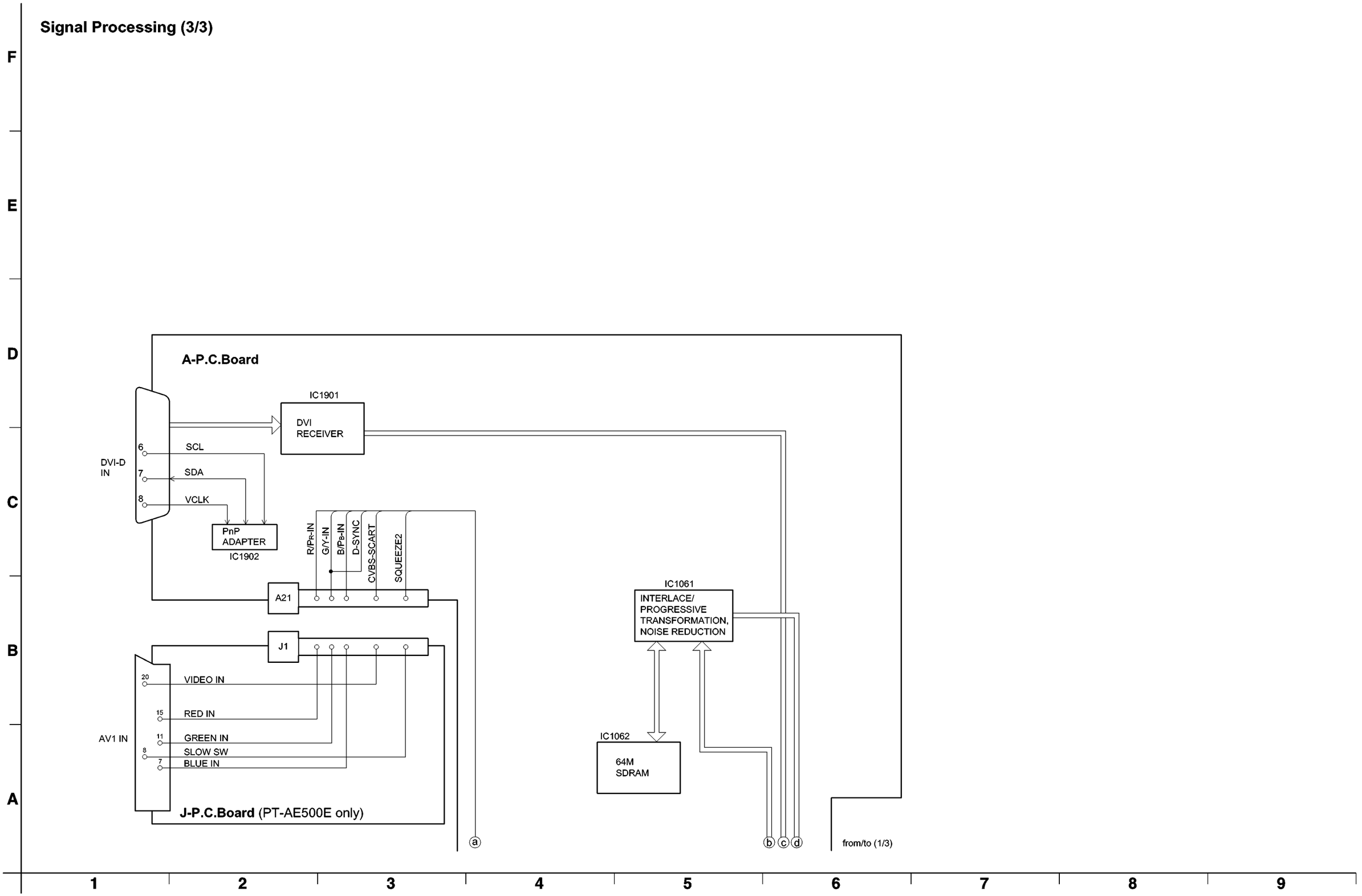


10.3. Signal Processing (2/3)

Signal Processing (2/3)



10.4. Signal Processing (3/3)



11 Schematic Diagram

Schematic Diagram for Model PT-AE500U

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS.
WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Schematic Diagram for Model PT-AE500E

Important Safety Notice

Components identified by the international symbol ⚠ have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.

Notes:

1. **Resistor**
   All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).
   - ○ : Nonflammable
   - ⊠ : Metal Oxide
   - △ : Solid
   - ◎ : Metal Film
   - ⊠ : Wire Wound
   - ⊗ : Fuse
2. **Capacitor**
   - ⊗ : Temperature Compensation
   - ⧺ : Electrolytic
   - Ⓜ : Polyester
   - ⧺ : Bipolar
   - ⓜ : Metalized Polyester
   - Ⓣ : Dipped Tantalum
   - ⊠ : Polypropylene
   - Ⓩ : Z-Type
3. **Coil**
   The unit of inductance is a H, unless otherwise noted.
4. **Test Point**
   - ● : Test Point
5. **Voltage Measurement**
   The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.
6. **Color code for the links between diagrams and circuit boards**

From/To		To/From	Color code
Block diagram	⟷	Schematic diagram	Magenta
Schematic diagram	⟷	Schematic diagram	Green
Schematic diagram	⟷	Circuit boards	Yellow
Schematic diagram	⟷	Waveforms	Cyan (Light blue)

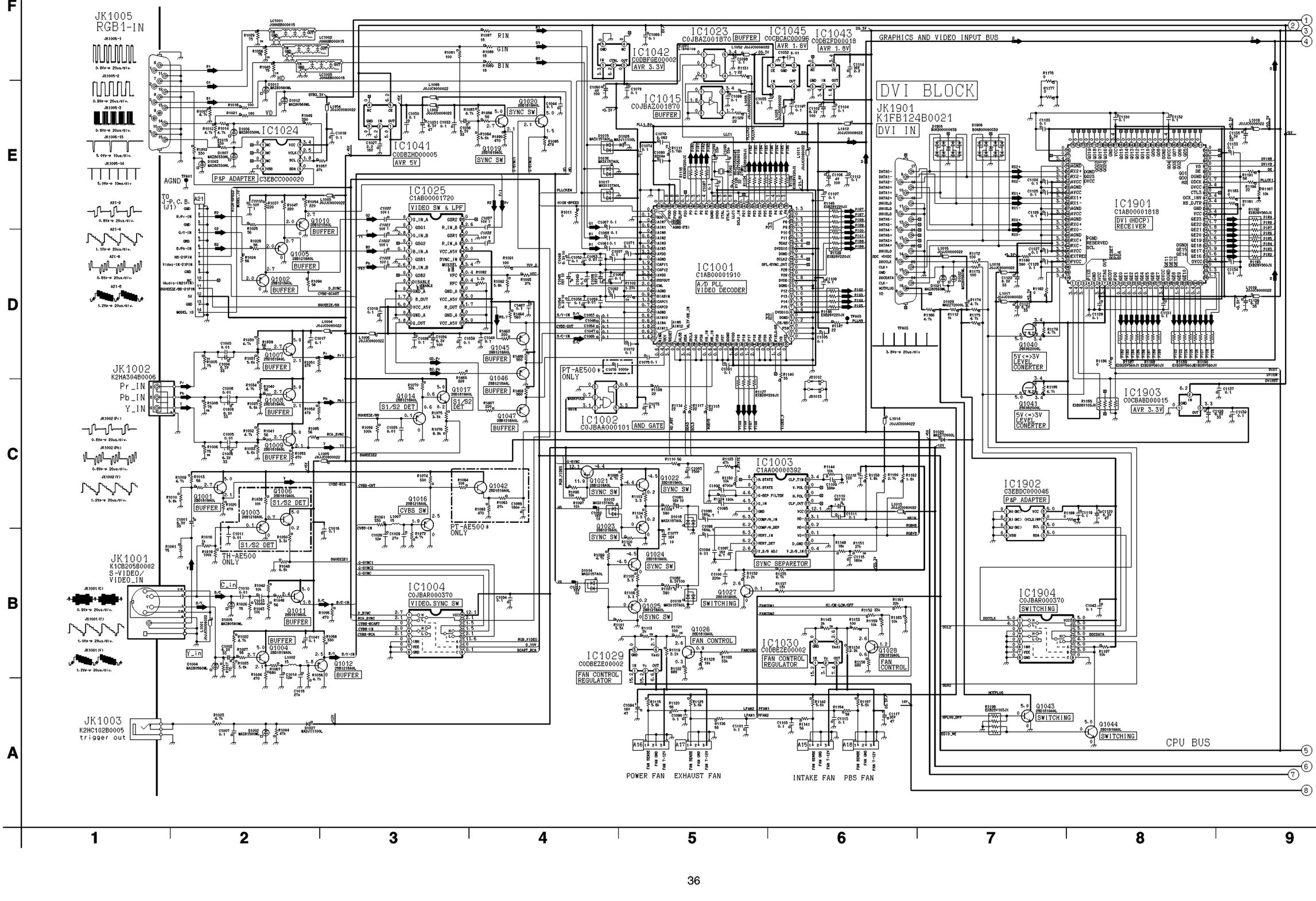
7. **HOT and COLD indications**
   The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:
8. **This schematic diagram is the latest at the time of printing and the subject to change without notice.**

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow.Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

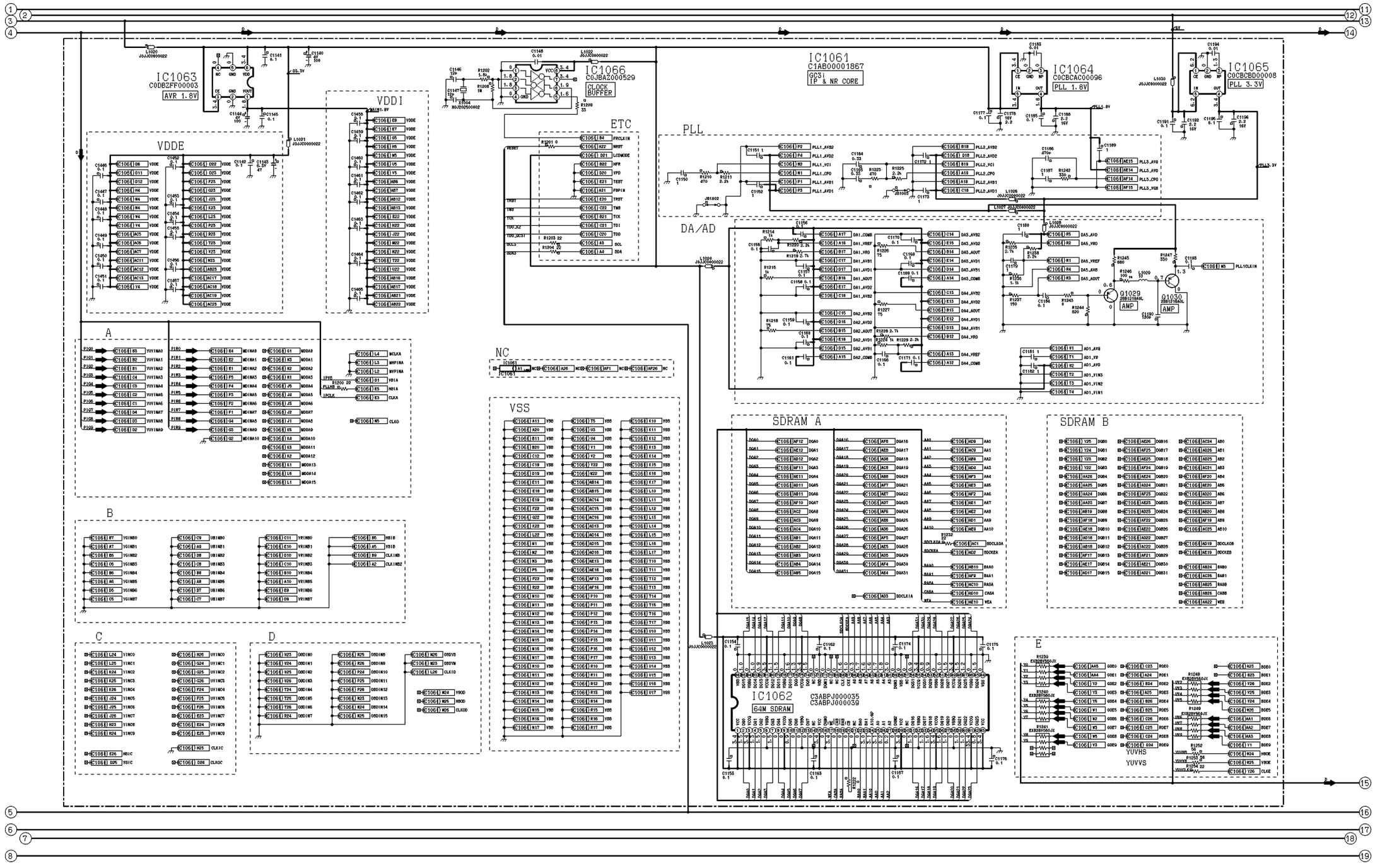
11.1. A-P.C.Board (1/5)

A-P.C.Board TXANP01PUMZ (1/5)



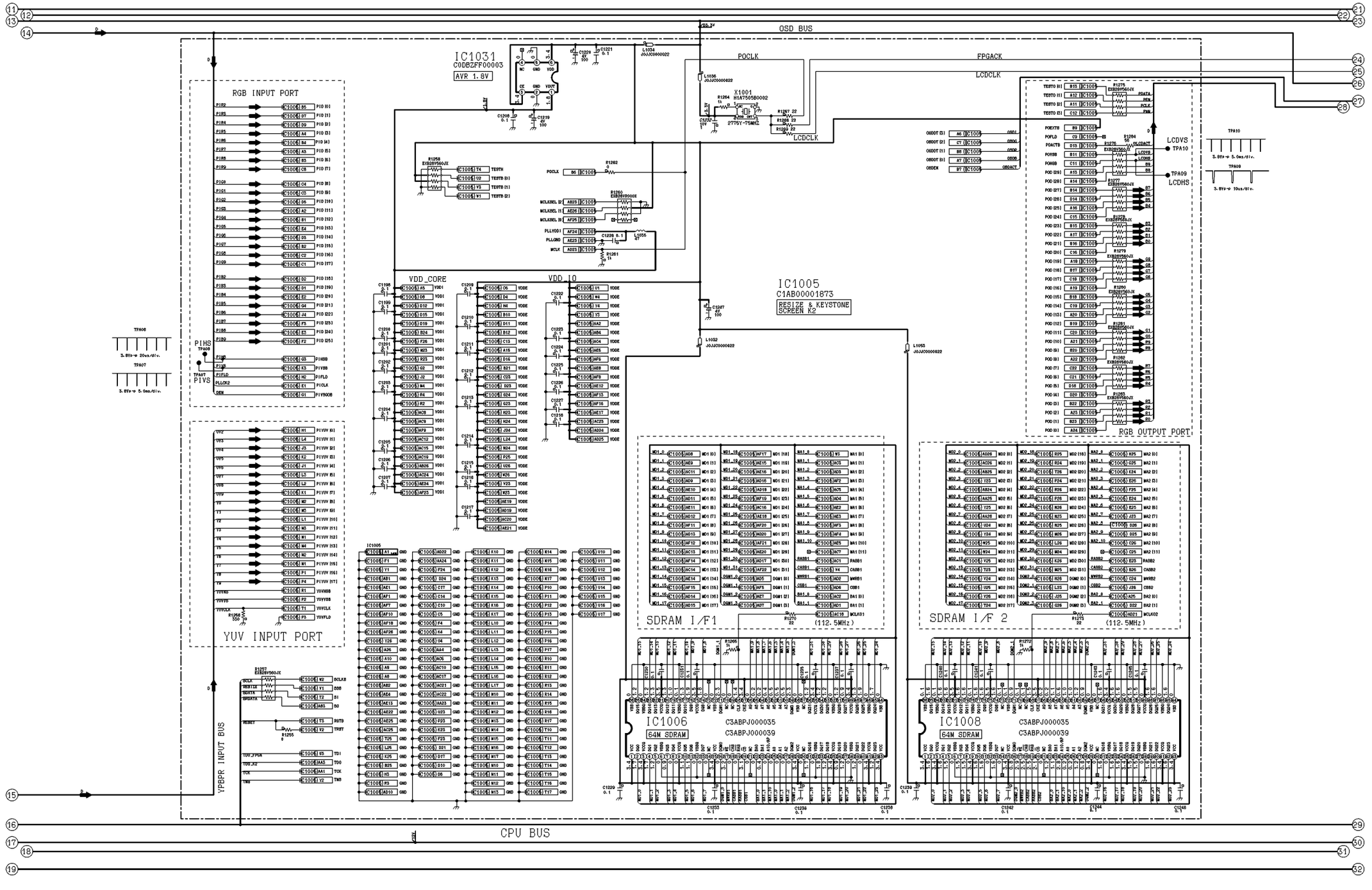
11.2. A-P.C.Board (2/5)

A-P.C.Board TXANP01PUMZ (2/5)



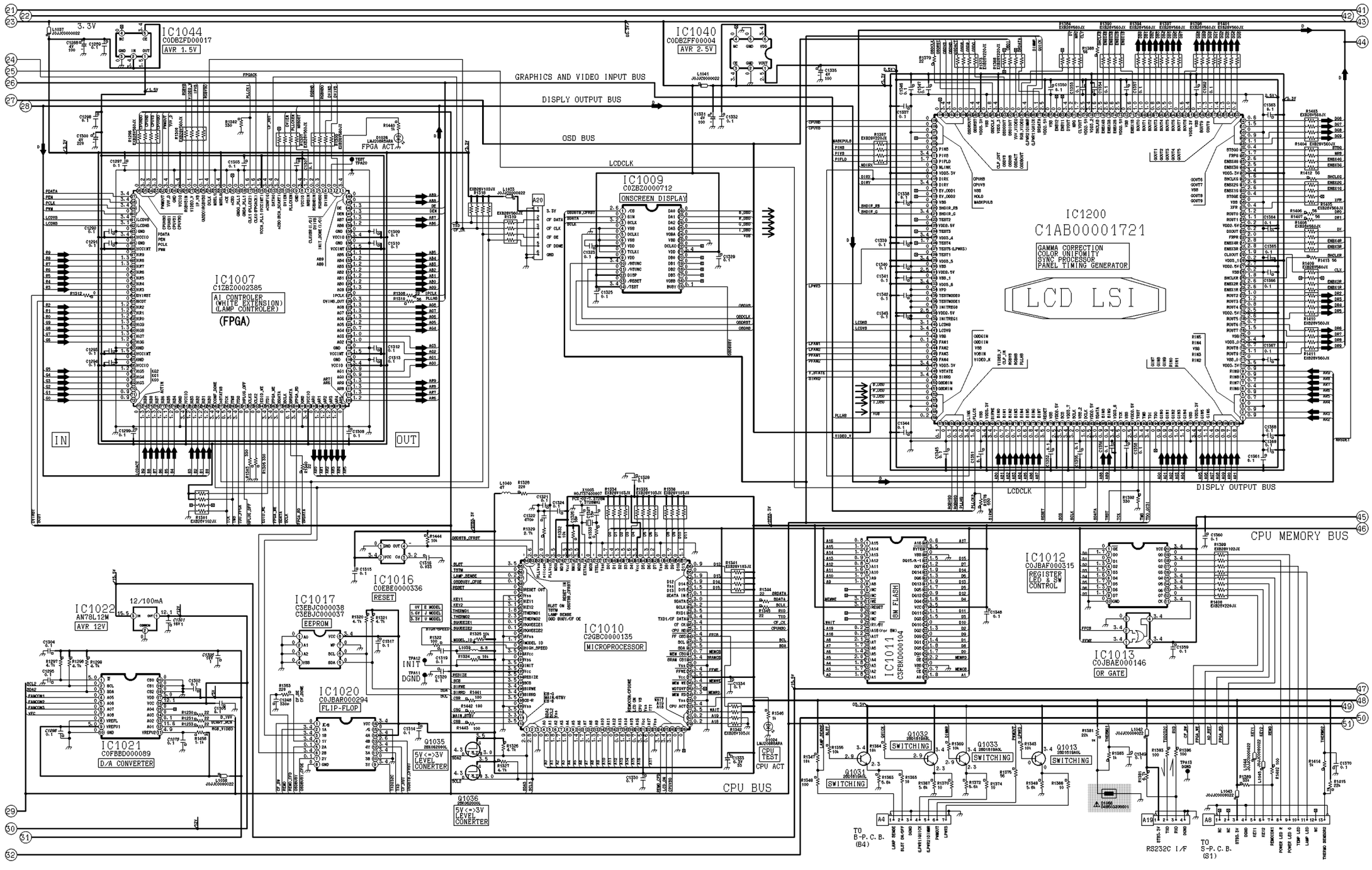
11.3. A-P.C.Board (3/5)

A-P.C.Board TXANP01PUMZ (3/5)



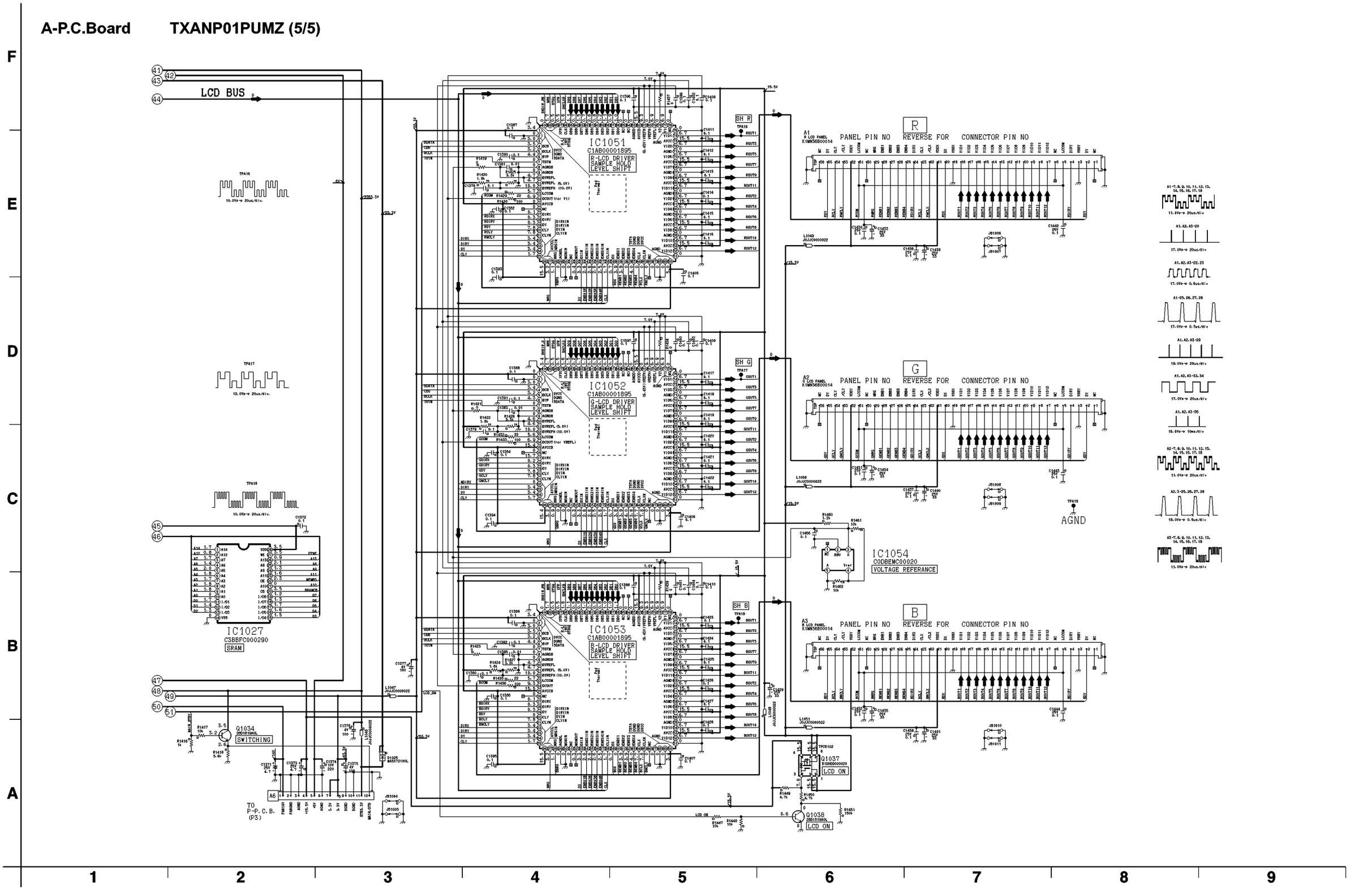
11.4. A-P.C.Board (4/5)

A-P.C.Board TXANP01PUMZ (4/5)



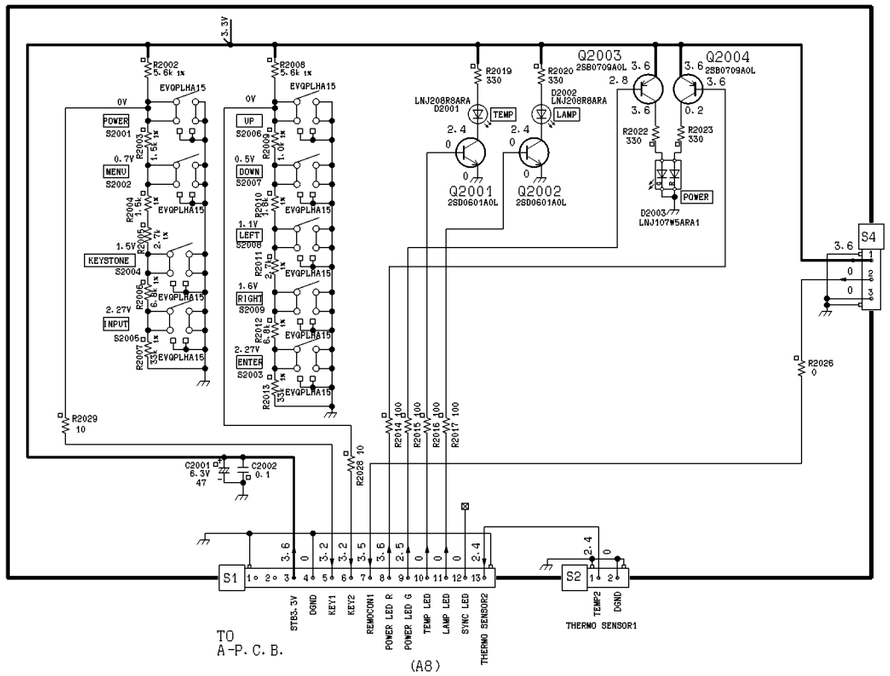
11.5. A-P.C.Board (5/5)

A-P.C.Board TXANP01PUMZ (5/5)

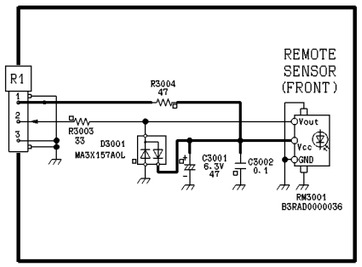


11.6. S-P.C.Board, R-P.C.Board, J-P.C.Board, K-P.C.Board

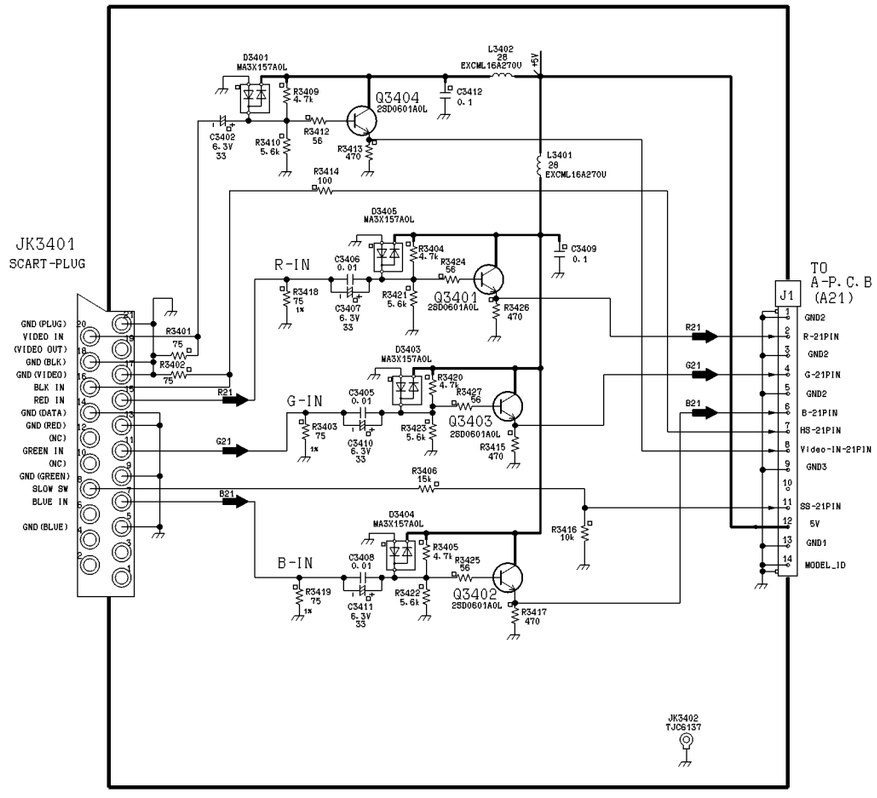
S-P.C.BOARD TNPA2666AB



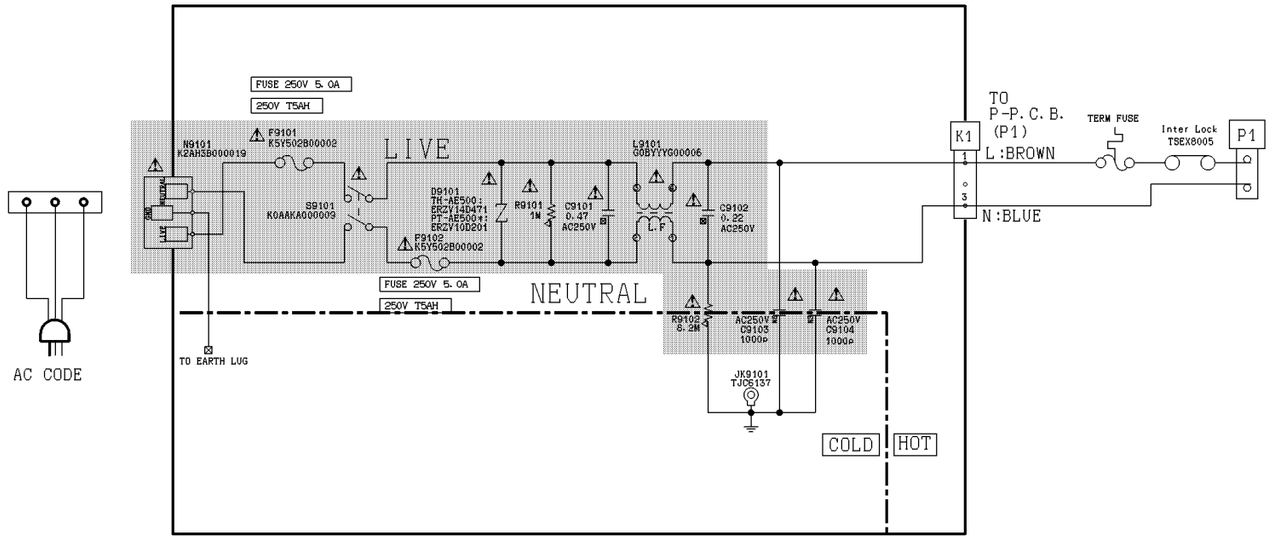
R-P.C.BOARD TNPA2665



J-P.C.BOARD TNPA2668AB (PT-AE500E only)



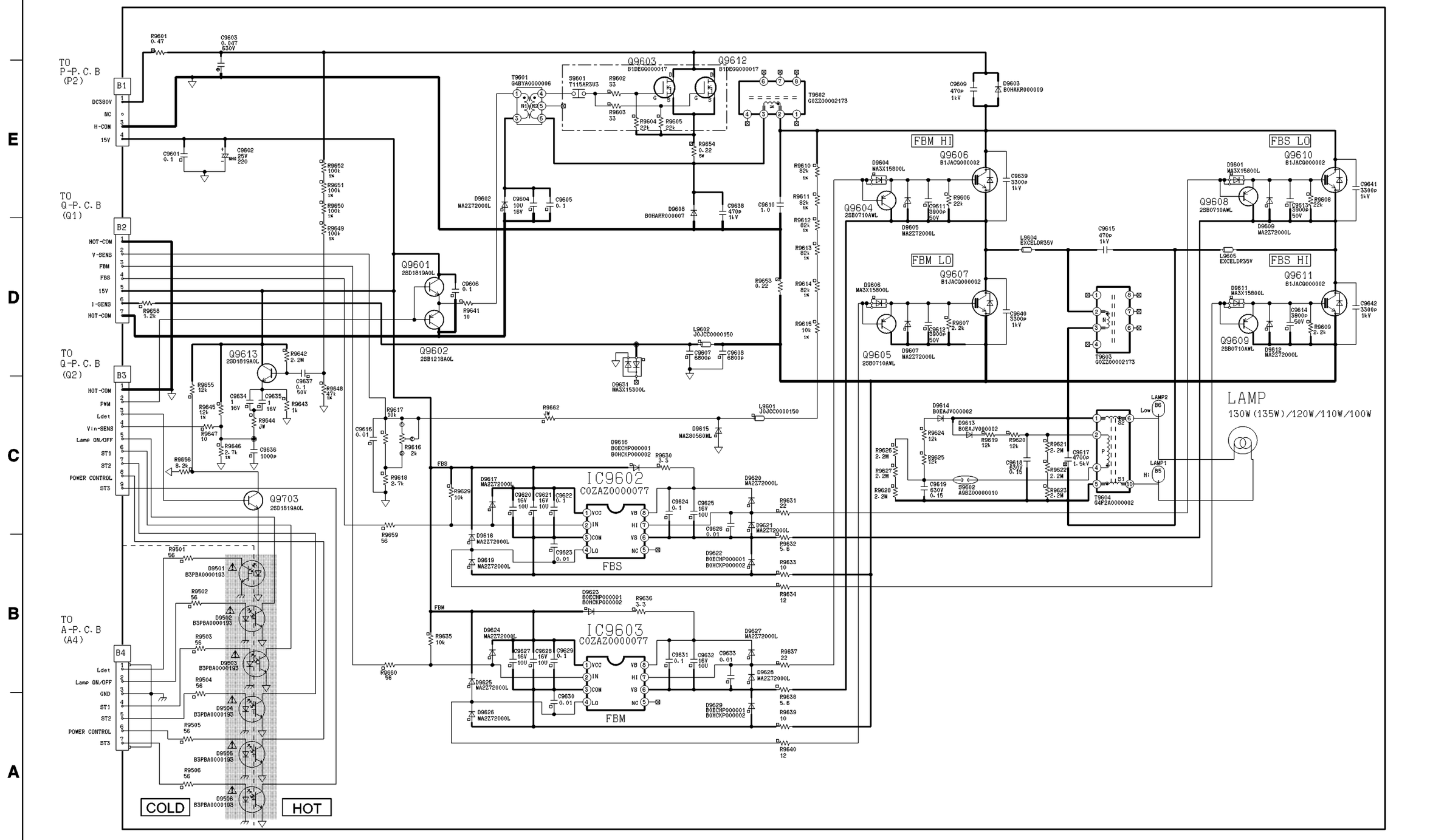
K-P.C.BOARD TXANP03PUMZ (PT-AE500U) TXANP03PUNZ (PT-AE500E)



11.7. B-Module

B-Module **TXANPBQVJV2** **Module Replacement**

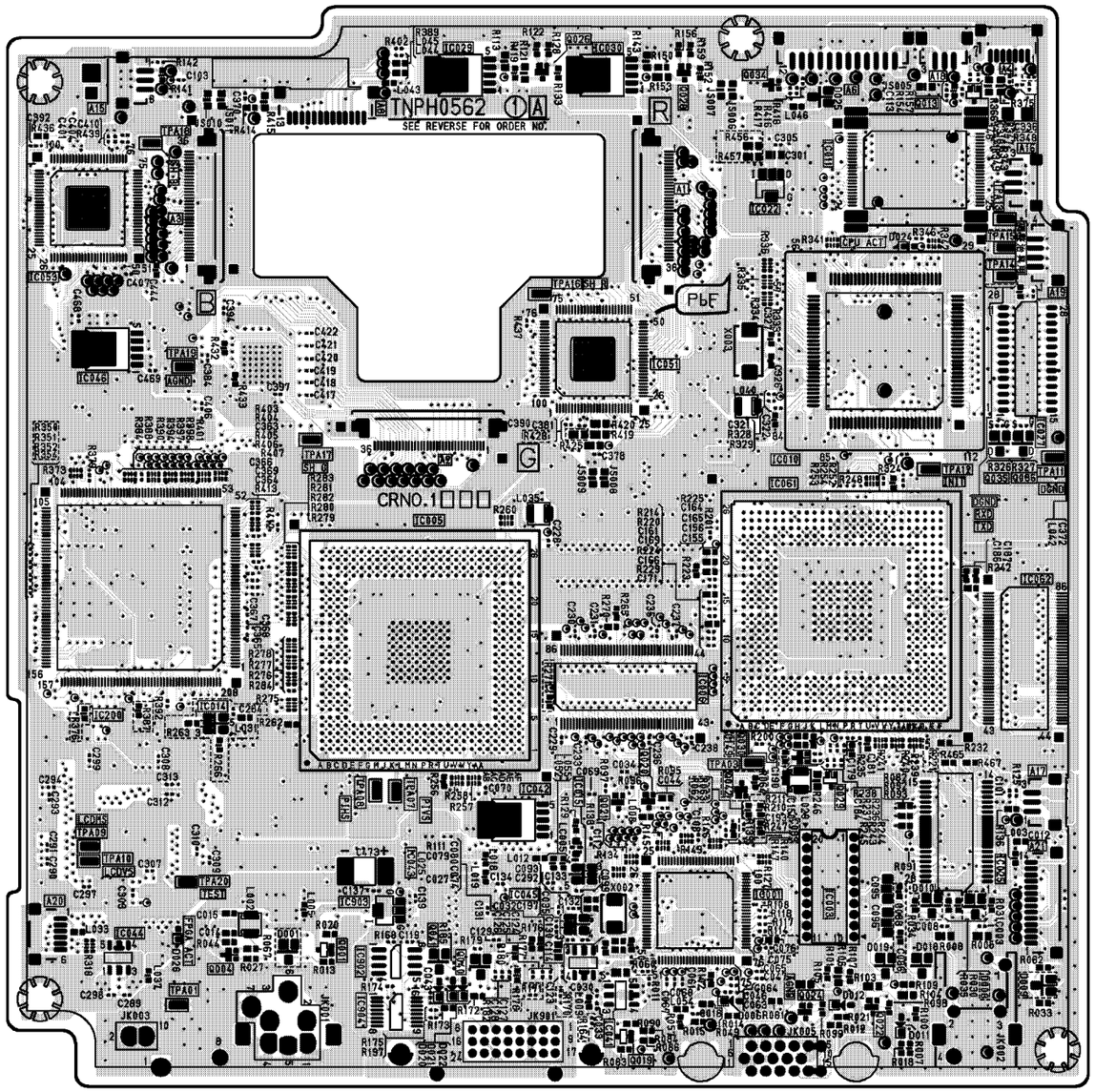
Only supplied components IC9602-03, Q9603-12, D9601, D9604-07, D9609, D9611-12, D9616-29, R9630-33, R9636-39



12 Circuit Boards

12.1. A-P.CBoard (Foil Side) S-P.C.Board

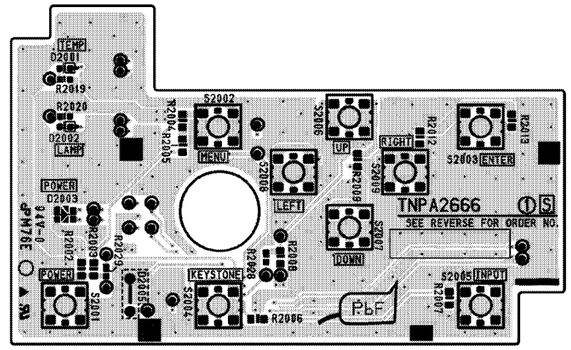
A-P.C.Board (Foil Side) **TXANP01PUMZ**



A-P.C.Board (Foil Side)			
IC			
IC1001	A-3	IC1042	B-3
IC1003	A-4	IC1043	B-2
IC1005	C-2	IC1044	A-1
IC1006	B-3	IC1045	A-3
IC1010	C-4	IC1046	D-1
IC1011	D-4	IC1051	C-3
IC1015	A-3	IC1053	D-1
IC1022	D-4	IC1061	C-4
IC1025	B-4	IC1062	B-5
IC1027	C-5	IC1200	C-1
IC1029	E-2	IC1902	A-2
IC1030	E-3	IC1903	A-2
IC1041	A-3	IC1904	A-2
TRANSISTOR			
Q1001	A-2	Q1028	E-3
Q1004	A-2	Q1029	B-4
Q1013	E-4	Q1030	B-4
Q1019	A-3	Q1034	E-4
Q1020	B-3	Q1035	C-5
Q1021	B-3	Q1036	C-5
Q1022	A-4	Q1040	A-2
Q1024	A-4	Q1041	A-2
Q1026	E-3	Q1042	B-3
TP			
TPA1	A-1	TPA13	D-5
TPA3	B-4	TPA14	D-5
TPA7	B-2	TPA15	D-5
TPA8	B-2	TPA16	D-3
TPA9	B-1	TPA17	C-2
TPA10	B-1	TPA18	D-1
TPA11	C-5	TPA19	D-1
TPA12	C-4	TPA20	A-1

ADDRESS INFORMATION

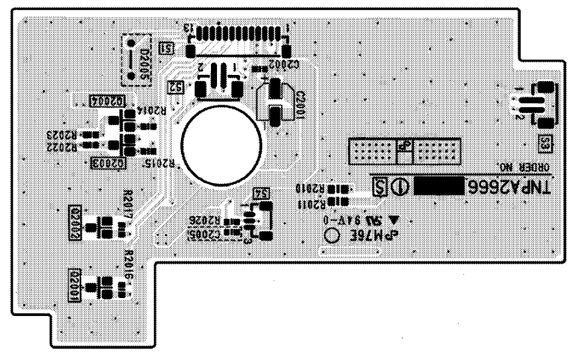
S-P.C.Board (Foil Side) **TNPA2666AB**



S-P.C.Board (Component Side) **TNPA2666AB**

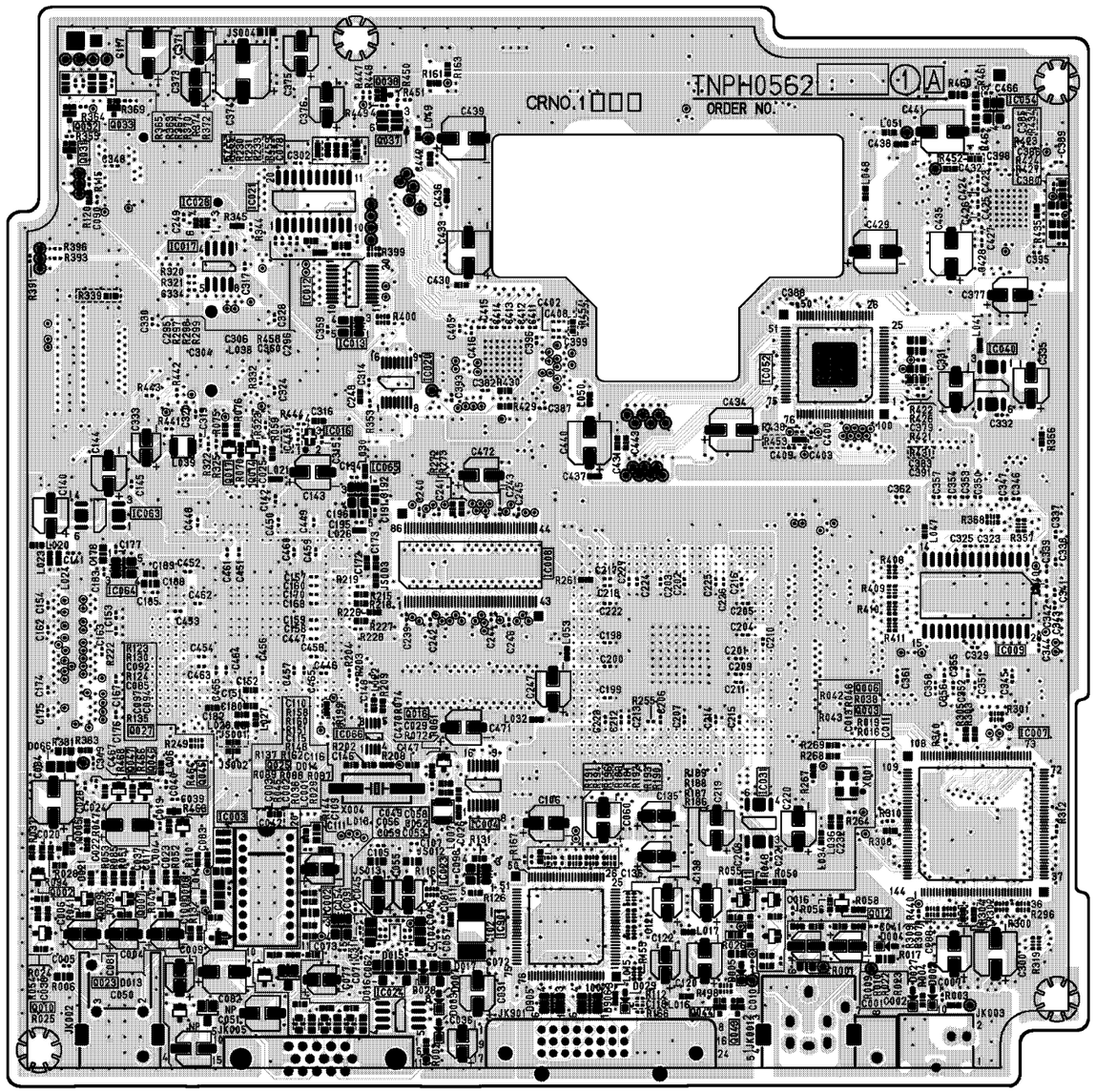
S-P.C.Board (Component Side)			
TRANSISTOR			
Q2001	B-7	Q2003	B-7
Q2002	B-7	Q2004	B-7

ADDRESS INFORMATION



12.2. A-P.C.Board (Component Side)

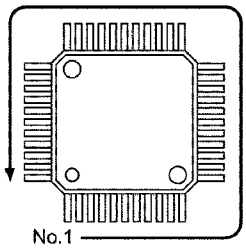
A-P.C.Board TXANP01PUMZ
(Component Side)



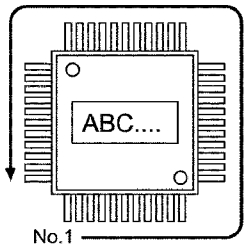
A-P.C.Board (Component Side)			
IC			
IC1002	A-2	IC1023	A-3
IC1003	A-2	IC1024	A-2
IC1004	B-3	IC1028	D-1
IC1007	B-5	IC1031	B-4
IC1008	C-3	IC1040	C-5
IC1009	C-5	IC1052	C-4
IC1012	D-2	IC1054	D-5
IC1013	D-2	IC1063	C-1
IC1016	C-2	IC1064	C-1
IC1017	D-1	IC1065	C-2
IC1020	C-2	IC1066	B-2
IC1021	D-2	IC1901	A-3
TRANSISTOR			
Q1002	A-1	Q1025	B-2
Q1005	B-1	Q1027	B-1
Q1007	A-1	Q1031	D-1
Q1008	A-1	Q1032	D-1
Q1009	A-1	Q1033	E-1
Q1010	A-1	Q1037	D-2
Q1011	A-4	Q1038	E-2
Q1012	A-4	Q1043	A-4
Q1014	C-2	Q1044	A-3
Q1016	B-2	Q1045	B-1
Q1017	C-2	Q1046	B-1
Q1023	A-1	Q1047	B-1

ADDRESS INFORMATION

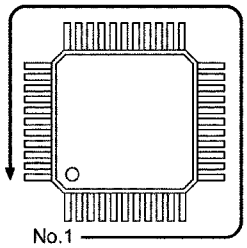
13 Terminal guide of ICs and transistors



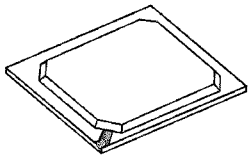
C1AB00001721 208 Pin



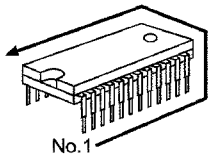
C2GBC000135 112 Pin



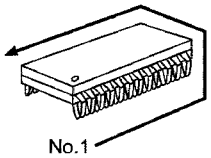
C1AB00001895 100 Pin
C1ZBZ0002385 144 Pin
C1AB00001818 100 Pin
IC1001 100 Pin



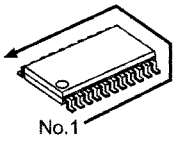
IC1005
IC1061



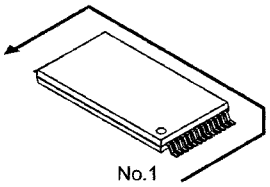
M52036SP 20 Pin
(C1AA00000392)



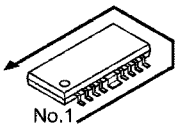
C3BBFC000127 28 Pin



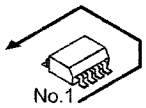
C3ABPJ000035 86 Pin
C0JBAR000370 16Pin
C0ZBZ0000712 28Pin
C0FBBD000089 20Pin
C0JBAF000315 20Pin
C0JBAR000294 16Pin



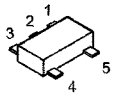
TVRN047 48 Pin
(IC1011)



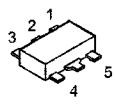
C1AB00001720 28 Pin



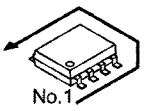
C3EBCC000020 8 Pin
C3EBJC000038 8 Pin



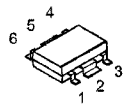
C0JBAE000146 5 Pin
C0CBCBD00008 5 Pin
C0CBCA00096 5 Pin
C0JBAZ001870 5 Pin
C0JBAA000101 5 Pin



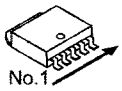
C0DBZFD00017 5 Pin
C0DBZGD00016 5 Pin
C0CBCAC00096 5 Pin
C0DBZHD00005 5 Pin



C3EBCC000020 8 Pin
C0JBAZ000529 8 Pin

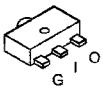


C0DBZFF00004 6 Pin
C0DBZFF00003 6 Pin

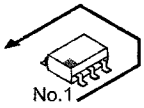


C0DBEZE00002 5 Pin

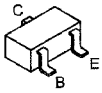
AN78L12M 3 Pin



C0CBABD00015 3 Pin



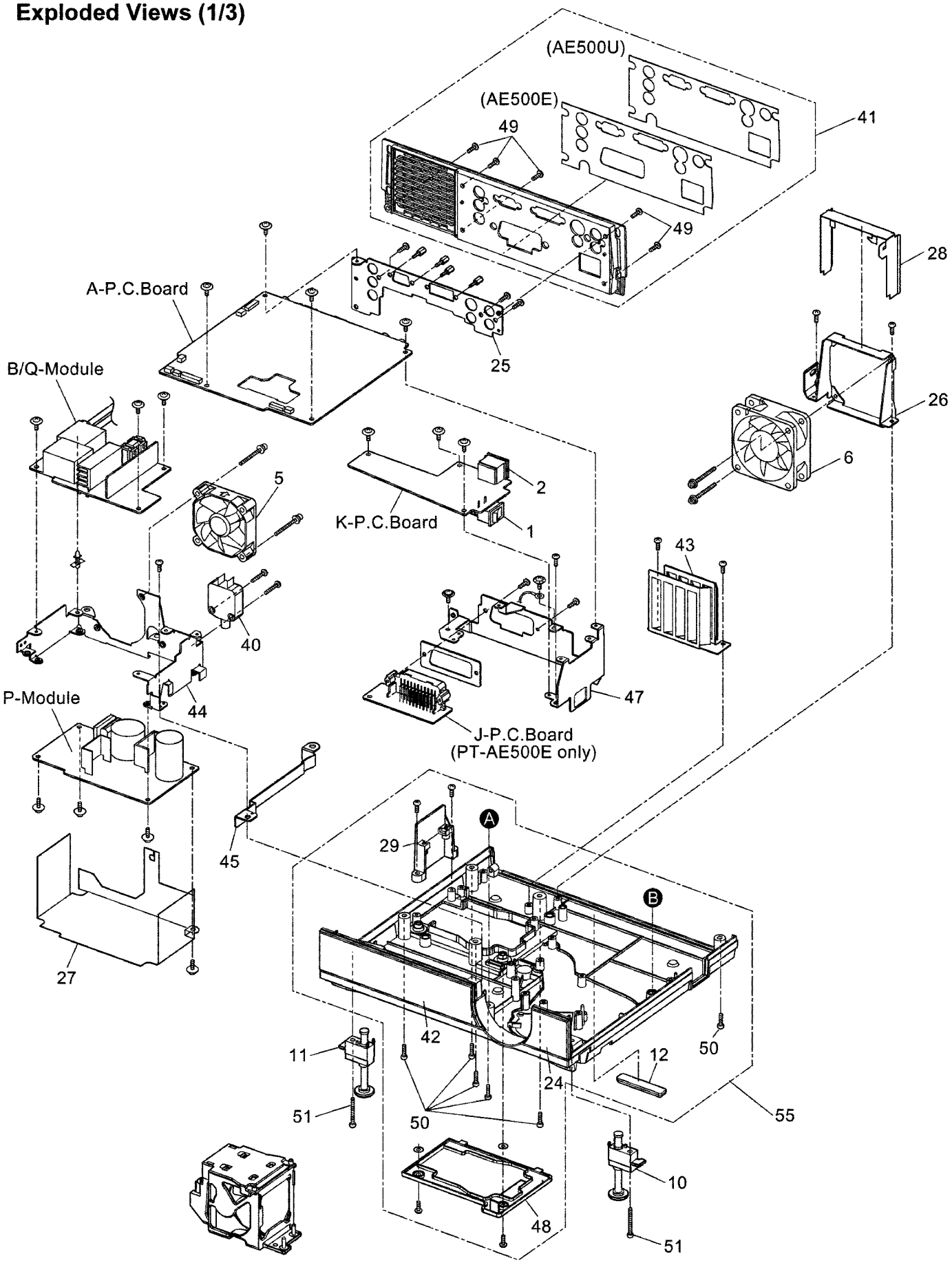
C0EBE0000336 4 Pin



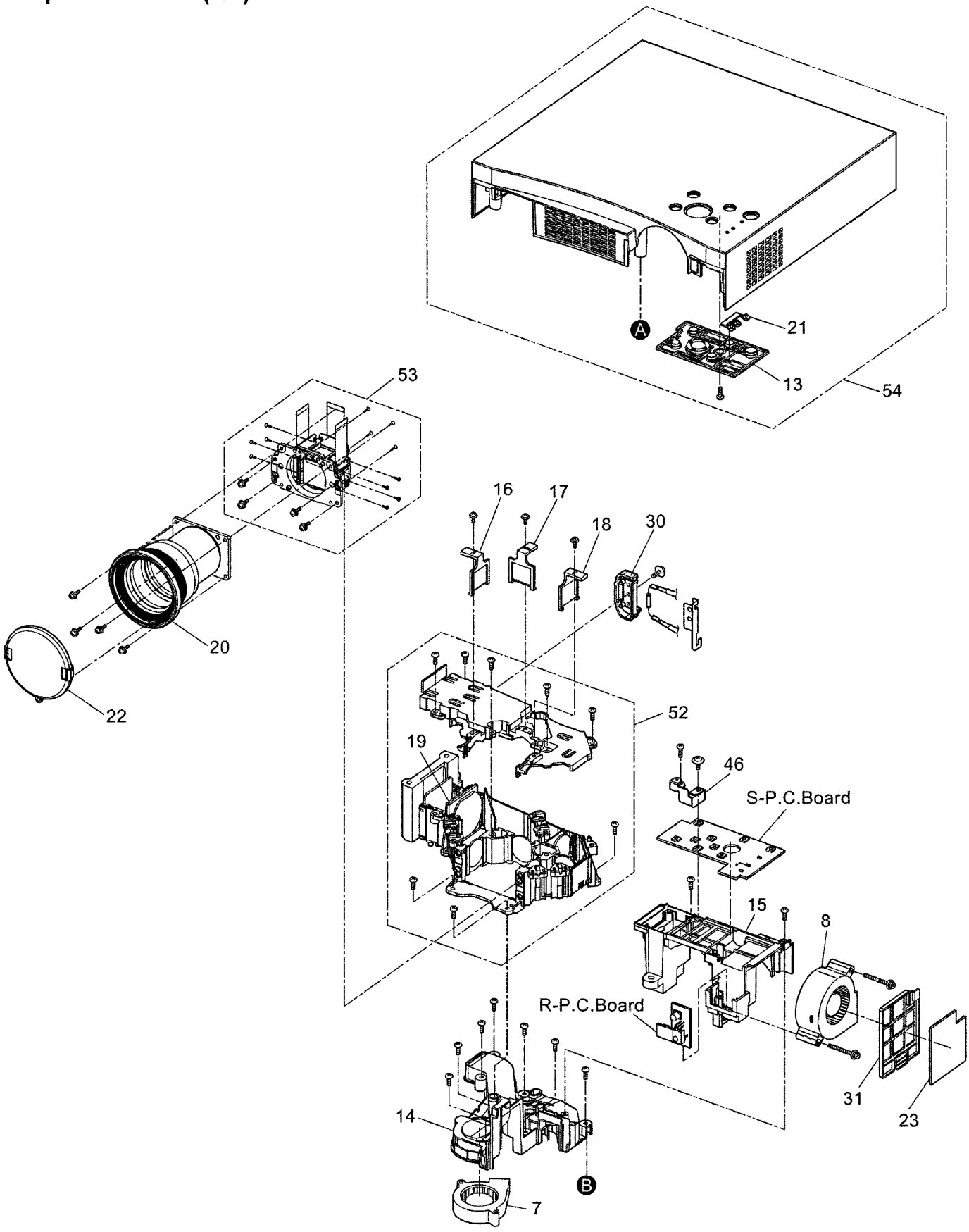
2SB1819AOL
2SB1218AOL
2SK06200L

14 Exploded Views

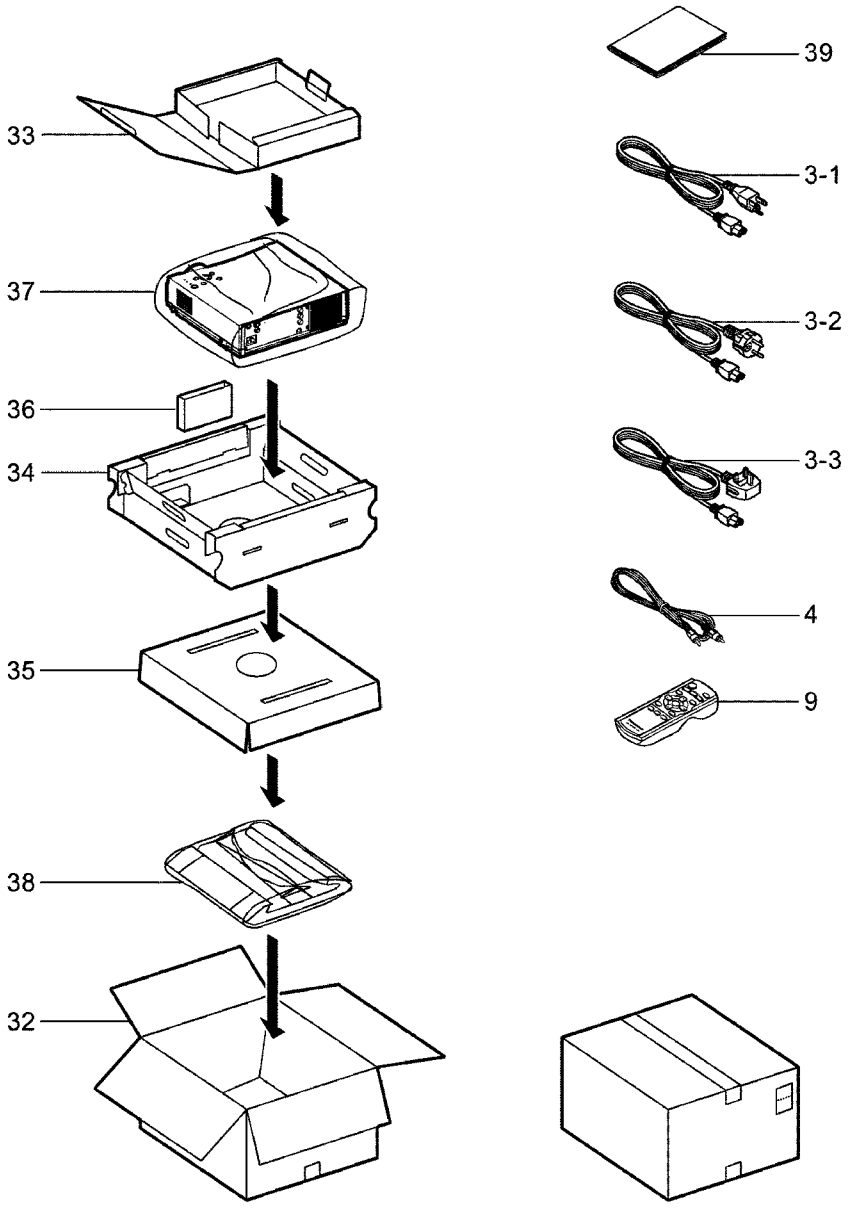
Exploded Views (1/3)



Exploded Views (2/3)



Exploded Views (3/3)



15 Replacement Parts List

Important Safety Notice

Components identified by the International symbol ⚠ have special characteristics important for safety.
When replacing any of these components, use only the manufacturer s specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : ± 1 %
F : Fuse	G : ± 2 %
M : Metal Oxide	J : ± 5 %
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : ±0.25 pF
E : Electrolytic	D : ±0.5 pF
P : Polyester	F : ± 1 pF
PP : Polypropylene	J : ± 5 %
S : Polystyrol	K : ±10 %
T : Tantalum	L : ±15 %
	M : ±20 %
	P : +100 %, -0 %
	Z : +80 %, -20 %

Notes:

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
		[MECHANICAL PARTS]	
	D4CDH5030002	TEMP SENSOR	
	J0KG00000052	CORE	⚠
1	K0AAKA000009	AC SWITCH	⚠
2	K2AH3B000020	AC INLET	⚠
3-1	K2CG3FR00001	POWER CORD	⚠ PT-AE500U
3-2	K2CM3FR00001	POWER CORD(EUROPE)	⚠ PT-AE500E
3-3	K2CT3FR00001	POWER CORD(ENGLAND)	⚠ PT-AE500E
4	K2KA2FA00003	AV CABLE	
5	L6FAKCEH0004	POWER FAN	⚠
6	L6FALEFH0019	VENTILATION FAN	⚠
7	L6FCJC9H0003	INHALATION OF AIR FAN	⚠
8	L6FCKEBH0002	INHALATION SIROCCO FAN	⚠
9	N2QAEA000019	REMOTE CONTROLLER	
10	TBLB0041	ADJUST LEG (RIGHT)	
11	TBLB0042	ADJUST LEG (LEFT)	
12	TBLG3042	RUBBER LEG (REAR)	
	TBMA139	PANASONIC BADGE	
	TBMA143	LOGO BADGE	
	TBMF252	MODEL NAME PLATE	PT-AE500U
	TBMF253	MODEL NAME PLATE	PT-AE500E
13	TBXA38002	CONTROL BUTTON	
14	TEEC5063-1	OPTICAL DUCT	
15	TEEC5108	DUCT	
16	TENC0152	POLARIZING PLATE/IN(R)	
17	TENC0153	POLARIZING PLATE/IN(G)	
18	TENC0154	POLARIZING PLATE/IN(B)	
	TEWA195	SHIELD TIGHTNESS 1	
	TEWA196	SHIELD TIGHTNESS 2	
	THEC035N	SCREW	
19	TKGF0056	PBS ARRAY	
20	TKGF0098	LENS	
21	TKKC5159	LED PLATE	
22	TKKL5249-1	LENS COVER	
23	TKNE044	FILTER	
24	TKPA83001	FRONT PANEL (RIGHT)	
	TKPA83701	REMOTE RECEIVER(FRONT)	
25	TKZF5025-1	TERMINAL METAL	
26	TKZJ5042	VENTILATIONFAN METAL	
	TMKX100	WASHER	

Ref. No.	Part No.	Part Name & Description	Remarks
27	TMKX332-1	SHEET (POWER UNIT)	
	TMKX355	SHIELD SHEET	
	TMKX359-2	POWER INSULATION SHEET	
	TMKX407	FUSE SHEET	
28	TMKX471	VENTILATION FAN COVER	
	TMKX525	VENTILATION SHIELD SHEET	
	TMME154	FUSE COVER	
	TMME196	SPACER	
29	TMMX089	LAMP POWER HOLDER	
30	TMXC017	TEMP FUSE METAL	
31	TMZX5018	FILTER COVER	
32	TPCB32012	CARTON	PT-AE500U
	TPCB32013	CARTON	PT-AE500E
33	TPDF0818	ACCESSARY PACKING CASE	
34	TPDF0925-2	CUSHION	
35	TPDF0926-1	CARRING CASE PAD	
36	TPDF1002	REINFORCEMENT PAD	
37	TPEH124	SET COVER	
38	TPEP008	CARRING CASE	
	TQB817002-1	SAFETY SHEET	PT-AE500U
	TQBH7007-1	SHEET	
39	TQBJ0133	INSTRUCTION BOOK	⚠ PT-AE500U
	TQBJ0134	INSTRUCTION BOOK	⚠ PT-AE500E
	TQBJ7002-1	SHEET	PT-AE500U
	TQD1712010	PASS CARD	
	TQDJ18011	GUARANTEE CARD (USA)	PT-AE500U
	TQDJ18012	GUARANTEE CARD (CANADA)	PT-AE500U
	TQF86202	LABEL	
40	TSEX8005	SWITCH	⚠ K0ADBF000007
41	TTPA0339	TERMINAL COVER ASSY	PT-AE500U
	TTPA0341	TERMINAL COVER ASSY	PT-AE500E
42	TTPA0340	FRONT PANEL (LEFT)	PT-AE500U
	TTPA0342	FRONT PANEL (LEFT)	PT-AE500E
	TUCA5006	SHIELD BOARD	PT-AE500E
43	TUCA5007	SHIELD BOARD	
44	TUCC5830	POWER BOX	
45	TUCX5120	GROUND METAL(KZ-P)	
46	TUCX5124	GROUND METAL	
47	TUWC046	METAL	

Ref. No.	Part No.	Part Name & Description	Remarks
48	TXFKK01VJV2	LAMP COVER ASSY	
	TXJ/K1VJJ3B	TEMPERATURE FUSE	⚠
	XSB3+10FZ	SCREW	
49	XSN3+8FZ	SCREW	
50	XSN4+10	SCREW	
	XSN4+16	SCREW	
	XTBT969Z	SCREW	
	XTN3+6G	SCREW	
	XTV3+10G	SCREW	
	XTW3+8P	TAPPING SCREW	
	XYN2+F6	SCREW	
	XYN3+F20	SCREW	
	XYN3+F30FZ	SCREW	
	XYN3+F6	SCREW	
	XYN3+F8	SCREW	
	XYN3+J6	SCREW	
	XYN3+J8	SCREW	
	XYN4+E8	SCREW	
	XYN4+J10	SCREW	
51	XYN4+J30	SCREW	
	XZBT6532	BAG	PT-AE500U
52	TXFEC99VJV2	ANALYSIS BLOCK	
53	TXFEN99VJV2	OPTICAL BLOCK	
54	TXFTF99PUMZ	UPPER COVER	
55	TXFTX99PUMZ	BOTTOM COVER	PT-AE500U
	TXFTX99PUNZ	BOTTOM COVER	PT-AE500E
		[INTEGRATED CIRCUIT]	
IC1001	C1AB00001910	I.C	
IC1002	TC7SH08FTL	I.C	C0JBAA000101
IC1003	M52036SP	I.C	C1AA00000392
IC1004	C0JBAR000370	I.C	
IC1005	C1AB00001873	I.C	
IC1006	C3ABPJ000035	I.C	
IC1007	C1ZBZ0002385	I.C	
IC1008	C3ABPJ000023	I.C	
IC1009	C0ZBZ0000818	I.C	
IC1010	C2GBC0000135	I.C	
IC1011	TVRN047	I.C	
IC1012	TC74LCX574TL	I.C	C0JBAF000315
IC1013	TC7SH32FTL	I.C	C0JBAE000146
IC1015	C0JBAZ002115	I.C	
IC1016	C0EBE0000336	I.C	
IC1017	C3EBJC000038	I.C	
IC1020	C0JBAR000294	I.C	
IC1021	M62399FP	I.C	C0FBBD000088
IC1022	AN78L12M	I.C	
IC1023	C0JBAZ001870	I.C	
IC1024	24LC21T-I/SN	I.C	C3EBCC000020
IC1025	C1AB00001720	I.C	
IC1027	C3BBFC000290	I.C	
IC1028	C0JBAZ001986	I.C	
IC1029	C0DBEZE00002	I.C	
IC1030	C0DBEZE00002	I.C	
IC1031	C0DBZFF00003	I.C	
IC1040	C0DBZFF00004	I.C	
IC1041	C0DBZHD00005	I.C	
IC1042	C0DBFGE00002	I.C	
IC1043	C0DBZFD00018	I.C	
IC1044	C0DBZFD00017	I.C	
IC1045	C0CBCAC00096	I.C	
IC1046	C0DBFGE00002	I.C	
IC1051	C1AB00001895	I.C	
IC1052	C1AB00001895	I.C	
IC1053	C1AB00001895	I.C	
IC1054	C0DBEMC00020	I.C	
IC1061	C1AB00001867	I.C	
IC1062	C3ABPJ000035	I.C	
IC1063	C0DBZFF00003	I.C	
IC1064	C0CBCAC00096	I.C	
IC1065	C0CBCBD00008	I.C	
IC1066	C0JBAZ000529	I.C	

Ref. No.	Part No.	Part Name & Description	Remarks
IC1200	C1AB00001721	I.C	
IC1901	C1AB00001818	I.C	
IC1902	C3EBDC000046	I.C	
IC1903	C0CBABD00015	I.C	
IC1904	C0JBAR000370	I.C	
IC9602	C0ZAZ0000077	I.C	
IC9603	C0ZAZ0000077	I.C	
		[TRANSISTORS]	
Q1001	2SD1819A0L	TRANSISTOR	
Q1002	2SB1218A0L	TRANSISTOR	
Q1004	2SD1819A0L	TRANSISTOR	
Q1005	2SB1218A0L	TRANSISTOR	
Q1007	2SD1819A0L	TRANSISTOR	
Q1008	2SD1819A0L	TRANSISTOR	
Q1009	2SD1819A0L	TRANSISTOR	
Q1010	2SB1218A0L	TRANSISTOR	
Q1011	2SD1819A0L	TRANSISTOR	
Q1012	2SB1218A0L	TRANSISTOR	
Q1013	2SD1819A0L	TRANSISTOR	
Q1014	2SB1218A0L	TRANSISTOR	
Q1016	2SB1218A0L	TRANSISTOR	
Q1017	2SD1819A0L	TRANSISTOR	
Q1019	2SD1819A0L	TRANSISTOR	
Q1020	2SD1819A0L	TRANSISTOR	
Q1021	2SB1218A0L	TRANSISTOR	
Q1022	2SD1819A0L	TRANSISTOR	
Q1023	2SB1218A0L	TRANSISTOR	
Q1024	2SD1819A0L	TRANSISTOR	
Q1025	2SB1218A0L	TRANSISTOR	
Q1026	2SD1819A0L	TRANSISTOR	
Q1027	2SD1819A0L	TRANSISTOR	
Q1028	2SD1819A0L	TRANSISTOR	
Q1029	2SB1218A0L	TRANSISTOR	
Q1030	2SB1218A0L	TRANSISTOR	
Q1031	2SD1819A0L	TRANSISTOR	
Q1032	2SD1819A0L	TRANSISTOR	
Q1033	2SD1819A0L	TRANSISTOR	
Q1034	2SD1819A0L	TRANSISTOR	
Q1035	2SK620	FET	2SK0620
Q1036	2SK620	FET	2SK0620
Q1037	B1DHDD000020	TRANSISTOR	
Q1038	2SD1819A0L	TRANSISTOR	
Q1040	2SK620	FET	2SK0620
Q1041	2SK620	FET	2SK0620
Q1042	2SD1819A0L	TRANSISTOR	
Q1043	2SD1819A0L	TRANSISTOR	
Q1044	2SD1819A0L	TRANSISTOR	
Q1045	2SB1218AOL	TRANSISTOR	
Q1046	2SB1218AOL	TRANSISTOR	
Q1047	2SB1218AOL	TRANSISTOR	
Q2001	2SD601A-R	TRANSISTOR	2SD0601AR
Q2002	2SD601A-R	TRANSISTOR	2SD0601AR
Q2003	2SB709A	TRANSISTOR	2SB0709A
Q2004	2SB709A	TRANSISTOR	2SB0709A
Q3401	2SD601A-R	TRANSISTOR	PT-AE500E
Q3402	2SD601A-R	TRANSISTOR	PT-AE500E
Q3403	2SD601A-R	TRANSISTOR	PT-AE500E
Q3404	2SD601A-R	TRANSISTOR	PT-AE500E
Q9603	B1DEGQ000017	TRANSISTOR	
Q9604	2SB710A	TRANSISTOR	2SB0710A
Q9605	2SB710A	TRANSISTOR	2SB0710A
Q9606	B1JACQ000002	TRANSISTOR	
Q9607	B1JACQ000002	TRANSISTOR	
Q9608	2SB710A	TRANSISTOR	2SB0710A
Q9609	2SB710A	TRANSISTOR	2SB0710A
Q9610	B1JACQ000002	TRANSISTOR	
Q9611	B1JACQ000002	TRANSISTOR	
Q9612	B1DEGQ000017	TRANSISTOR	
		[DIODES]	

Ref. No.	Part No.	Part Name & Description	Remarks
D1002	MAZ81500ML	DIODE	
D1003	MAZ80330HL	DIODE	
D1004	MAZ80560ML	DIODE	
D1005	MAZ80560ML	DIODE	
D1006	MAZ80330HL	DIODE	
D1007	MAZ80330HL	DIODE	
D1011	MAZ80560ML	DIODE	
D1012	MAZ80560ML	DIODE	
D1013	MA157A	DIODE	MA3X157A
D1014	MA157A	DIODE	MA3X157A
D1015	MA157A	DIODE	MA3X157A
D1016	MA157A	DIODE	MA3X157A
D1017	MA157A	DIODE	MA3X157A
D1018	MA157A	DIODE	MA3X157A
D1019	MA157A	DIODE	MA3X157A
D1020	MA2Z72000L	DIODE	
D1021	MAZ80560ML	DIODE	
D1022	MAZ80560ML	DIODE	
D1024	LNJ208R8ARA	LED	
D1025	MA721	DIODE	MA3X721
D1026	LNJ208R8ARA	LED	
D1027	MA2J11100L	DIODE	
D1028	MA2J11100L	DIODE	
D1029	MA2Z72000L	DIODE	
D1066	D4B503390001	THERMISTOR	
D1905	B0KB00000039	DIODE	
D1906	B0KB00000039	DIODE	
D2001	LNJ208R8ARA	LED	
D2002	LNJ208R8ARA	LED	
D2003	LNJ107W5ARA1	LED	
D3001	MA157A	DIODE	MA3X157A
D3401	MA157A	DIODE	PT-AE500E
D3403	MA157A	DIODE	PT-AE500E
D3404	MA157A	DIODE	PT-AE500E
D3405	MA157A	DIODE	PT-AE500E
D9101	ERZV14D471	VARISTOR	⚠
D9601	MA158	DIODE	MA3X158
D9604	MA158	DIODE	MA3X158
D9605	MA2Z72000L	DIODE	
D9606	MA158	DIODE	MA3X158
D9607	MA2Z72000L	DIODE	
D9609	MA2Z72000L	DIODE	
D9611	MA158	DIODE	MA3X158
D9612	MA2Z72000L	DIODE	
D9616	D1FL40F4063	DIODE	B0ECHP000001
D9617	MA2Z72000L	DIODE	
D9618	MA2Z72000L	DIODE	
D9619	MA2Z72000L	DIODE	
D9620	MA2Z72000L	DIODE	
D9621	MA2Z72000L	DIODE	
D9622	D1FL40F4063	DIODE	B0ECHP000001
D9623	D1FL40F4063	DIODE	B0ECHP000001
D9624	MA2Z72000L	DIODE	
D9625	MA2Z72000L	DIODE	
D9626	MA2Z72000L	DIODE	
D9627	MA2Z72000L	DIODE	
D9628	MA2Z72000L	DIODE	
D9629	D1FL40F4063	DIODE	B0ECHP000001
[COILS]			
L1002	ELJFA150JF	COIL	
L1003	J0JJC0000022	EMI FILTER	
L1004	J0JJC0000022	EMI FILTER	
L1005	J0JJC0000022	EMI FILTER	
L1006	J0JJC0000022	EMI FILTER	
L1007	ELJFA150JF	COIL	
L1008	J0JJC0000022	EMI FILTER	
L1009	J0JJC0000022	EMI FILTER	
L1011	J0JJC0000022	EMI FILTER	
L1012	J0JJC0000022	EMI FILTER	
L1013	J0JJC0000022	EMI FILTER	
L1014	J0JJC0000022	EMI FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
L1015	J0JJC0000022	EMI FILTER	
L1016	J0JJC0000022	EMI FILTER	
L1017	J0JJC0000022	EMI FILTER	
L1018	J0JJC0000022	EMI FILTER	
L1019	J0JJC0000022	EMI FILTER	
L1020	J0JJC0000022	EMI FILTER	
L1021	J0JJC0000022	EMI FILTER	
L1022	J0JJC0000022	EMI FILTER	
L1023	J0JJC0000022	EMI FILTER	
L1024	J0JJC0000022	EMI FILTER	
L1025	J0JJC0000022	EMI FILTER	
L1026	J0JJC0000022	EMI FILTER	
L1027	J0JJC0000022	EMI FILTER	
L1028	J0JJC0000022	EMI FILTER	
L1029	ELJFA100JF	COIL	
L1030	J0JJC0000022	EMI FILTER	
L1032	J0JJC0000022	EMI FILTER	
L1034	J0JJC0000022	EMI FILTER	
L1035	ELJFA470JF	COIL	
L1036	J0JJC0000022	EMI FILTER	
L1037	J0JJC0000022	EMI FILTER	
L1038	J0JJC0000022	EMI FILTER	
L1039	ELJFA6R8JB	CHIP COIL	
L1040	ELJFA470JF	COIL	
L1041	J0JJC0000022	EMI FILTER	
L1042	J0JJC0000022	EMI FILTER	
L1043	J0JJC0000022	EMI FILTER	
L1044	J0JJC0000022	EMI FILTER	
L1045	J0JJC0000022	EMI FILTER	
L1046	J0JJC0000022	EMI FILTER	
L1047	J0JJC0000022	EMI FILTER	
L1048	J0JJC0000022	EMI FILTER	
L1049	J0JJC0000022	EMI FILTER	
L1050	J0JJC0000022	EMI FILTER	
L1051	J0JJC0000022	EMI FILTER	
L1052	J0JJC0000022	EMI FILTER	
L1053	J0JJC0000022	EMI FILTER	
L1054	J0JJC0000022	EMI FILTER	
L1055	J0JJC0000022	EMI FILTER	
L3401	EXCML16A270U	COIL	PT-AE500E
L3402	EXCML16A270U	COIL	PT-AE500E
L9101	G0BYYYG00006	COIL	⚠
LC1001	J0HABB000015	FILTER	
LC1002	J0HABB000015	FILTER	
LC1003	J0HABB000015	FILTER	
LC1005	J0HABB000015	FILTER	
[RESISTORS]			
R1001	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1002	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1003	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1004	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1005	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1006	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1007	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1008	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1009	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1010	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1011	ERJ2GE0R00	M 0 OHM, 0.063W	
R1012	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1013	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1014	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1015	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1016	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1017	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1018	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1019	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1020	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1021	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1022	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1023	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1024	ERJ3GEYJ560	M 56 OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1025	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1026	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1027	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1028	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1029	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1030	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1031	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1032	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1033	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1034	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1035	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1036	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1037	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1039	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1040	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1041	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1042	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1043	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1044	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1045	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1046	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1047	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1048	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	
R1049	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1051	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1052	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1053	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1054	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1055	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1056	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1057	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1058	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1059	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1061	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1062	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1063	ERJ3GEYJ821	M 820KOHM,J,1/16W	
R1064	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1067	ERJ3GEYJ681	M 680 OHM,J,1/16W	
R1070	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1072	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1074	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1075	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	
R1076	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	
R1081	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1082	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	
R1083	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1084	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1085	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1086	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1087	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1088	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1089	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1090	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1091	ERJ2GEJ101	M 100 OHM, 0.063W	
R1092	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1093	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1094	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1095	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1096	ERJ2GEJ103	M 10K OHM, 0.063W	
R1097	ERJ2GEJ103	M 10K OHM, 0.063W	
R1098	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1099	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1100	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1101	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	
R1102	ERJ3EKF1371	M 1.37KOHM,0.063W	
R1103	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1104	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1105	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1106	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1107	ERJ3GEYJ391	M 390 OHM,J,1/16W	D0GB391JA002
R1108	ERJ2GEJ220	M 22 OHM, 0.063W	
R1109	ERJ3GEYJ391	M 390 OHM,J,1/16W	D0GB391JA002
R1110	ERJ3GEYJ560	M 56 OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1111	ERJ3EKF1741	M 1.74KOHM,0.063W	
R1112	ERJ2GEJ102	M 1K OHM, 0.063W	
R1113	ERJ6ENF2001	M 2KOHM, 1/10W	
R1114	ERJ2GEJ220	M 22 OHM, 0.063W	
R1115	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1116	EXB28V220J	RESISTOR ARRAY	
R1117	ERJ2GEJ220	M 22 OHM, 0.063W	
R1118	ERJ2GEJ220	M 22 OHM, 0.063W	
R1119	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1120	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1121	ERJ6ENF1000	M 100 OHM, 1/10W	
R1122	ERJ3GEYJ681	M 680 OHM,J,1/16W	
R1123	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1124	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1125	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1126	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1127	EXB28V220J	RESISTOR ARRAY	
R1128	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1129	ERJ3GEYJ330	M 33 OHM, 1/16W	
R1130	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1131	ERJ3GEYJ750	M 75 OHM,J,1/16W	
R1132	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1133	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R1134	EXB28V220J	RESISTOR ARRAY	
R1135	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1136	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1137	ERJ3GEYJ183	M 18K OHM,J,1/16W	
R1138	EXB28V220J	RESISTOR ARRAY	
R1140	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R1141	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1142	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1143	ERJ6ENF2001	M 2KOHM, 1/10W	
R1144	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1145	EXB28V220J	RESISTOR ARRAY	
R1146	EXB28V220J	RESISTOR ARRAY	
R1147	ERJ2GEJ220	M 22 OHM, 0.063W	
R1148	ERJ3GEYJ183	M 18K OHM,J,1/16W	
R1149	EXB28V220J	RESISTOR ARRAY	
R1150	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1151	ERJ6ENF2702	M 27KOHM, 1/10W	
R1152	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R1153	ERJ6ENF1000	M 100 OHM, 1/10W	
R1154	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1155	EXB28V103J	RESISTOR ARRAY	
R1156	ERJ3GEYJ681	M 680 OHM,J,1/16W	
R1157	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1158	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1159	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1160	ERJ3GEYJ272	M 2.7KOHMJ,J1/16W	
R1161	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1162	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1163	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1166	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1167	ERJ2GEJ103	M 10K OHM, 0.063W	
R1168	ERJ2GE0R00	M 0 OHM, 0.063W	
R1172	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1173	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1174	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1175	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1176	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1177	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1179	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1180	ERJ3GEYJ391	M 390 OHM,J,1/16W	D0GB391JA002
R1181	ERJ2GE0R00	M 0 OHM, 0.063W	
R1182	ERJ2GE0R00	M 0 OHM, 0.063W	
R1183	ERJ2GE0R00	M 0 OHM, 0.063W	
R1185	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1186	ERJ2GE0R00	M 0 OHM, 0.063W	
R1187	EXB28V560J	RESISTOR ARRAY	
R1188	EXB28V560J	RESISTOR ARRAY	
R1189	EXB28V560J	RESISTOR ARRAY	
R1190	EXB28V560J	RESISTOR ARRAY	
R1191	ERJ2GEJ560	M 56 OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1192	EXB28V560J	RESISTOR ARRAY	
R1193	EXB28V560J	RESISTOR ARRAY	
R1194	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1197	ERJ2GEJ103	M 10K OHM, 0.063W	
R1198	EXB28V103J	RESISTOR ARRAY	
R1200	ERJ2GEJ220	M 22 OHM, 0.063W	
R1201	ERJ2GE0R00	M 0 OHM, 0.063W	
R1202	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1203	ERJ2GEJ220	M 22 OHM, 0.063W	
R1204	ERJ2GEJ220	M 22 OHM, 0.063W	
R1208	ERJ3GEYJ105	M 1M OHM,J,1/16W	
R1209	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R1210	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1211	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1214	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1215	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1218	ERJ3GEYJ750	M 75 OHM,J,1/16W	
R1219	ERJ2GEJ272	M 2.7KOHM, 0.063W	
R1220	ERJ2GEJ222	M 2.2KOHM, 0.063W	
R1222	ERJ2GE0R00	M 0 OHM, 0.063W	
R1223	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1224	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1225	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1226	ERJ3GEYJ750	M 75 OHM,J,1/16W	
R1227	ERJ3GEYJ750	M 75 OHM,J,1/16W	
R1228	ERJ2GEJ272	M 2.7KOHM, 0.063W	
R1229	ERJ2GEJ222	M 2.2KOHM, 0.063W	
R1230	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1231	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1232	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1233	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1235	ERJ2GEJ272	M 2.7KOHM, 0.063W	
R1236	ERJ2GEJ112	M 1.1KOHM, 0.063W	
R1237	ERJ2GEJ151	M 150 OHM, 0.063W	
R1238	ERJ2GEJ222	M 2.2KOHM, 0.063W	
R1239	EXB28V560J	RESISTOR ARRAY	
R1240	EXB28V560J	RESISTOR ARRAY	
R1241	EXB28V560J	RESISTOR ARRAY	
R1242	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1243	ERJ2GE0R00	M 0 OHM, 0.063W	
R1244	ERJ2GEJ821	M 820 OHM, 0.063W	
R1245	ERJ2GEJ681	M 680 OHM, 0.063W	
R1246	ERJ6ENF1000	M 100 OHM, 1/10W	
R1247	ERJ2GEJ331	M 330 OHM, 0.063W	
R1248	EXB28V560J	RESISTOR ARRAY	
R1249	EXB28V560J	RESISTOR ARRAY	
R1252	ERJ2GEJ560	M 56 OHM, 0.063W	
R1253	ERJ2GEJ560	M 56 OHM, 0.063W	
R1254	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1255	ERJ2GE0R00	M 0 OHM, 0.063W	
R1256	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1257	EXB28V560J	RESISTOR ARRAY	
R1258	EXB28V560J	RESISTOR ARRAY	
R1260	EXB28VR000	RESISTOR ARRAY	
R1261	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1262	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1264	ERJ2GEJ102	M 1K OHM, 0.063W	
R1265	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1267	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1268	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1269	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1270	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1272	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1273	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1275	EXB28V560J	RESISTOR ARRAY	
R1276	EXB28V560J	RESISTOR ARRAY	
R1277	EXB28V560J	RESISTOR ARRAY	
R1278	EXB28V560J	RESISTOR ARRAY	
R1279	EXB28V560J	RESISTOR ARRAY	
R1280	EXB28V560J	RESISTOR ARRAY	
R1281	EXB28V560J	RESISTOR ARRAY	
R1282	EXB28V560J	RESISTOR ARRAY	
R1283	EXB28V560J	RESISTOR ARRAY	

Ref. No.	Part No.	Part Name & Description	Remarks
R1284	ERJ2GEJ560	M 56 OHM, 0.063W	
R1296	EXB28V560J	RESISTOR ARRAY	
R1297	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1298	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1299	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1300	EXB28V560J	RESISTOR ARRAY	
R1301	EXB28V102J	RESISTOR ARRAY	
R1302	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1303	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1305	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1307	EXB28V560J	RESISTOR ARRAY	
R1308	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1309	EXB28V560J	RESISTOR ARRAY	
R1310	ERJ2GEJ560	M 56 OHM, 0.063W	
R1312	ERJ2GE0R00	M 0 OHM, 0.063W	
R1318	EXB28V102J	RESISTOR ARRAY	
R1320	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1321	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1322	ERJ2GEJ101	M 100 OHM, 0.063W	
R1324	ERJ2GEJ103	M 10K OHM, 0.063W	
R1325	ERJ2GEJ103	M 10K OHM, 0.063W	
R1326	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1327	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1328	ERJ2GEJ221	M 220 OHM, 0.063W	
R1329	ERJ2GEJ272	M 2.7KOHM, 0.063W	
R1332	ERJ2GEJ103	M 10K OHM, 0.063W	
R1333	ERJ2GE0R00	M 0 OHM, 0.063W	
R1334	EXB28V103J	RESISTOR ARRAY	
R1335	EXB28V103J	RESISTOR ARRAY	
R1336	EXB28V103J	RESISTOR ARRAY	
R1340	ERJ2GEJ220	M 22 OHM, 0.063W	
R1341	EXB28V103J	RESISTOR ARRAY	
R1342	EXB28V103J	RESISTOR ARRAY	
R1343	ERJ2GEJ103	M 10K OHM, 0.063W	
R1344	ERJ2GEJ220	M 22 OHM, 0.063W	
R1345	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1346	ERJ2GEJ102	M 1K OHM, 0.063W	
R1347	ERJ2GEJ103	M 10K OHM, 0.063W	
R1348	ERJ2GEJ101	M 100 OHM, 0.063W	
R1349	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1353	ERJ2GEJ221	M 220 OHM, 0.063W	
R1355	ERJ2GEJ103	M 10K OHM, 0.063W	
R1356	ERJ3GEY0R00	M 0 OHM,J,1/16W	
R1357	EXB28V220J	RESISTOR ARRAY	
R1363	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1364	ERJ2GEJ103	M 10K OHM, 0.063W	
R1365	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1366	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1367	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1368	EXB28V220J	RESISTOR ARRAY	
R1369	ERJ2GEJ103	M 10K OHM, 0.063W	
R1370	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1372	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1373	EXB28V220J	RESISTOR ARRAY	
R1374	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1375	ERJ6GEYJ560	M 56 OHM,J,1/10W	
R1379	ERJ2GEJ220	M 22 OHM, 0.063W	
R1381	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1383	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1384	EXB28V560J	RESISTOR ARRAY	
R1388	ERJ2GEJ560	M 56 OHM, 0.063W	
R1389	ERJ2GEJ333	M 33K OHM, 0.063W	
R1390	EXB28V560J	RESISTOR ARRAY	
R1391	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1392	ERJ2GEJ331	M 330 OHM, 0.063W	
R1393	ERJ2GEJ101	M 100 OHM, 0.063W	
R1394	EXB28V560J	RESISTOR ARRAY	
R1396	ERJ2GEJ101	M 100 OHM, 0.063W	
R1397	EXB28V560J	RESISTOR ARRAY	
R1398	EXB28V560J	RESISTOR ARRAY	
R1399	EXB28V102J	RESISTOR ARRAY	
R1400	EXB28V220J	RESISTOR ARRAY	
R1401	EXB28V560J	RESISTOR ARRAY	

Ref. No.	Part No.	Part Name & Description	Remarks
R1402	ERJ2GEJ101	M 100 OHM, 0.063W	
R1403	EXB28V560J	RESISTOR ARRAY	
R1404	EXB28V560J	RESISTOR ARRAY	
R1405	EXB28V560J	RESISTOR ARRAY	
R1406	ERJ2GEJ560	M 56 OHM, 0.063W	
R1407	ERJ2GEJ560	M 56 OHM, 0.063W	
R1408	EXB28V560J	RESISTOR ARRAY	
R1409	EXB28V560J	RESISTOR ARRAY	
R1410	EXB28V560J	RESISTOR ARRAY	
R1411	EXB28V560J	RESISTOR ARRAY	
R1412	ERJ2GEJ560	M 56 OHM, 0.063W	
R1413	ERJ2GEJ560	M 56 OHM, 0.063W	
R1414	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1415	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1416	ERJ2GEJ102	M 1K OHM, 0.063W	
R1417	ERJ2GEJ103	M 10K OHM, 0.063W	
R1418	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1419	ERJ6GEY0R00	M 0 OHM,J,1/10W	
R1420	ERJ6ENF1801	M 1.8KOHM, 1/10W	
R1421	ERJ6GEY0R00	M 0 OHM,J,1/10W	
R1422	ERJ6ENF1801	M 1.8KOHM, 1/10W	
R1423	ERJ6GEY0R00	M 0 OHM,J,1/10W	
R1424	ERJ6ENF1801	M 1.8KOHM, 1/10W	
R1425	ERJ6ENF3301	M 3.3KOHM, 1/10W	
R1426	ERJ6ENF3301	M 3.3KOHM, 1/10W	
R1427	ERJ6ENF3301	M 3.3KOHM, 1/10W	
R1429	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1430	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1432	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1433	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1435	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1436	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1437	ERJ2GE0R00	M 0 OHM, 0.063W	
R1438	ERJ2GE0R00	M 0 OHM, 0.063W	
R1439	ERJ2GE0R00	M 0 OHM, 0.063W	
R1440	ERJ2GEJ102	M 1K OHM, 0.063W	
R1441	ERJ2GEJ101	M 100 OHM, 0.063W	
R1442	ERJ2GEJ101	M 100 OHM, 0.063W	
R1443	ERJ2GEJ101	M 100 OHM, 0.063W	
R1444	ERJ2GEJ103	M 10K OHM, 0.063W	
R1447	ERJ2GEJ103	M 10K OHM, 0.063W	
R1448	ERJ2GEJ103	M 10K OHM, 0.063W	
R1449	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1450	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1451	ERJ2GEJ154	M 150KOHM, 0.063W	
R1458	ERJ6ENF1101	M 1.1KOHM, 1/10W	
R1460	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	
R1461	ERJ6ENF1002	M 10KOHM, 1/10W	
R1462	ERJ6ENF1002	M 10KOHM, 1/10W	
R1463	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1464	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R1465	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1466	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R1467	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1468	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R2002	ERJ6ENF5601	M 5.6KOHM, 1/10W	
R2003	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2004	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2005	ERJ6ENF2701	M 2.7KOHM, 1/10W	
R2006	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R2007	ERJ6ENF3302	M 33KOHM, 1/10W	
R2008	ERJ6ENF5601	M 5.6KOHM, 1/10W	
R2009	ERJ6ENF1001	M 1KOHM, 1/10W	
R2010	ERJ6ENF1801	M 1.8KOHM, 1/10W	
R2011	ERJ6ENF2701	M 2.7KOHM, 1/10W	
R2012	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R2013	ERJ6ENF3302	M 33KOHM, 1/10W	
R2014	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2015	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2016	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2017	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2019	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2020	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2022	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2023	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2026	ERJ3GEY0R00	M 0 OHM, 1/16W	
R2028	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R2029	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R3003	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R3004	ERJ6GEYJ470	M 47 OHM,J,1/10W	
R3401	ERJ6GEYJ750	M 75 OHM,J,1/10W	PT-AE500E
R3402	ERJ6GEYJ750	M 75 OHM,J,1/10W	PT-AE500E
R3403	ERJ6ENF75R0	M 75 OHM, 1/10W	PT-AE500E
R3404	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	PT-AE500E
R3405	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	PT-AE500E
R3406	ERJ6GEYJ153	M 15K OHM,J,1/10W	PT-AE500E
R3409	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	PT-AE500E
R3410	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	PT-AE500E
R3412	ERJ3GEYJ560	M 56 OHM,J,1/16W	PT-AE500E
R3413	ERJ3GEYJ471	M 470 OHM,J,1/16W	PT-AE500E
R3414	ERJ3GEYJ101	M 100 OHM,J,1/16W	PT-AE500E
R3415	ERJ3GEYJ471	M 470 OHM,J,1/16W	PT-AE500E
R3416	ERJ3GEYJ103	M 10K OHM,J,1/16W	PT-AE500E
R3417	ERJ3GEYJ471	M 470 OHM,J,1/16W	PT-AE500E
R3418	ERJ6ENF75R0	M 75 OHM, 1/10W	PT-AE500E
R3419	ERJ6ENF75R0	M 75 OHM, 1/10W	PT-AE500E
R3420	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	PT-AE500E
R3421	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	PT-AE500E
R3422	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	PT-AE500E
R3423	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	PT-AE500E
R3424	ERJ3GEYJ560	M 56 OHM,J,1/16W	PT-AE500E
R3425	ERJ3GEYJ560	M 56 OHM,J,1/16W	PT-AE500E
R3426	ERJ3GEYJ471	M 470 OHM,J,1/16W	PT-AE500E
R3427	ERJ3GEYJ560	M 56 OHM,J,1/16W	PT-AE500E
R9101	ERC12GK105	S 1MOHM, K,1/2W	⚠
R9102	ERC12GK825	S 8.2MOHM, K,1/2W	⚠
R9630	ERJ14YJ3R3	M 3.3 OHM, J,1/4W	
R9631	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9632	ERJ14YJ5R6	M 5.6 OHM, J,1/4W	
R9633	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9636	ERJ14YJ3R3	M 3.3 OHM, J,1/4W	
R9637	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9638	ERJ14YJ5R6	M 5.6 OHM, J,1/4W	
R9639	ERJ8GEYJ100	M 10 OHM, J,1/4W	
		[CAPACITORS]	
C1001	EEVHB0J330	E 33UF, 6.3V	
C1002	EEVHB0J330	E 33UF, 6.3V	
C1003	ECJ0EB1C103K	C 0.01UF, 16V	
C1004	EEVHB0J330	E 33UF, 6.3V	
C1005	ECJ0EB1C103K	C 0.01UF, 16V	
C1006	EEVHB0J330	E 33UF, 6.3V	
C1007	ECJ0EF1C104Z	C 0.1UF, 16V	
C1008	ECJ0EB1C103K	C 0.01UF, 16V	
C1009	EEVHB0J330	E 33UF, 6.3V	
C1010	ECJ0EB1C103K	C 0.01UF, 16V	
C1011	ECJ0EB1C103K	C 0.01UF, 16V	
C1012	ECJ1XF1A105Z	C 100UF, 10V	
C1013	ECJ1XC1H102J	C 1000PF, J, 50V	
C1014	ECUX1H120JCV	C 12PF, 50V	
C1015	ECUX1H270JCV	C 27PF, 50V	
C1016	ECJ0EF1C104Z	C 0.1UF, 16V	
C1017	ECJ0EF1C104Z	C 0.1UF, 16V	
C1018	ECJ0EF1C104Z	C 0.1UF, 16V	
C1019	ECJ0EF1C104Z	C 0.1UF, 16V	
C1020	ECJ1XF1A105Z	C 100UF, 10V	
C1021	ECJ1XF1A105Z	C 100UF, 10V	
C1022	ECJ1XF1A105Z	C 100UF, 10V	
C1023	ECJ1XF1A105Z	C 100UF, 10V	
C1024	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1025	ECJ0EB1C103K	C 0.01UF, 16V	
C1026	ECUX1H120JCV	C 12PF, 50V	
C1027	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1028	ECJ0EF1C104Z	C 0.1UF, 16V	
C1029	ECUX1H270JCV	C 27PF, 50V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1030	ECJ0EF1C104Z	C 0.1UF, 16V	
C1031	EEVHB0J470	E 47UF, 6.3V	
C1032	ECJ0EB1C103K	C 0.01UF, 16V	
C1033	ECJ0EF1C104Z	C 0.1UF, 16V	
C1034	ECJ0EF1C104Z	C 0.1UF, 16V	
C1035	ECJ0EF1C104Z	C 0.1UF, 16V	
C1036	EEVHB0J330	E 33UF, 6.3V	
C1037	ECJ1XF1A105Z	C 100UF, 10V	
C1038	ECJ1XF1A105Z	C 100UF, 10V	
C1039	ECJ0EF1C104Z	C 0.1UF, 16V	
C1040	ECJ0EF1C104Z	C 0.1UF, 16V	
C1041	ECJ0EF1C104Z	C 0.1UF, 16V	
C1043	ECJ0EF1C104Z	C 0.1UF, 16V	
C1044	ECJ0EF1C104Z	C 0.1UF, 16V	
C1045	EEVHB1C100	E 10UF, 16V	
C1046	ECJ0EF1C104Z	C 0.1UF, 16V	
C1047	ECJ0EF1C104Z	C 0.1UF, 16V	
C1048	ECJ3XB0J106M	C 10UF, 6.3V	
C1049	ECJ0EF1C104Z	C 0.1UF, 16V	
C1050	EEVHP1C100	E 10UF, 16V	
C1051	EEVHP1C100	E 10UF, 16V	
C1052	ECJ0EF1C104Z	C 0.1UF, 16V	
C1053	ECJ0EB1C103K	C 0.01UF, 16V	
C1054	ECJ3XB0J106M	C 10UF, 6.3V	
C1055	EEVHB1C100	E 10UF, 16V	
C1056	ECJ0EF1C104Z	C 0.1UF, 16V	
C1057	ECJ0EF1C104Z	C 0.1UF, 16V	
C1058	ECJ0EF1C104Z	C 0.1UF, 16V	
C1059	ECJ0EB1C103K	C 0.01UF, 16V	
C1060	EEVHB0G101	E 100UF, 4V	
C1061	ECJ0EF1C104Z	C 0.1UF, 16V	
C1062	ECJ0EF1C104Z	C 0.1UF, 16V	
C1063	ECJ0EF1C104Z	C 0.1UF, 16V	
C1064	ECJ0EF1C104Z	C 0.1UF, 16V	
C1065	ECJ0EF1C104Z	C 0.1UF, 16V	
C1067	ECJ0EF1C104Z	C 0.1UF, 16V	
C1068	ECJ0EF1C104Z	C 0.1UF, 16V	
C1069	ECJ0EF1C104Z	C 0.1UF, 16V	
C1070	ECJ0EF1C104Z	C 0.1UF, 16V	
C1071	ECJ0EF1C104Z	C 0.1UF, 16V	
C1072	ECJ0EF1C104Z	C 0.1UF, 16V	
C1073	ECJ0EF1C104Z	C 0.1UF, 16V	
C1074	ECJ0EF1C104Z	C 0.1UF, 16V	
C1075	ECJ0EF1C104Z	C 0.1UF, 16V	
C1076	ECJ1XC1H102J	C 1000PF, J, 50V	
C1077	EEVHB1C100	E 10UF, 16V	
C1078	ECJ0EF1C104Z	C 0.1UF, 16V	
C1079	ECUV1C823KBV	C 0.082PF, 16V	
C1080	ECUX1H822KBV	C 8200PF, 50V	ECJ1XB1H822K
C1081	EEVHB1C100	E 10UF, 16V	
C1082	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1083	ECJ1XC1H151J	C 150PF, 50V	
C1084	EEVHB1C470	E 47UF, 16V	
C1085	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1087	ECJ0EF1C104Z	C 0.1UF, 16V	
C1089	ECJ1XC1H221J	C 220PF, J, 50V	
C1090	ECJ0EF1C104Z	C 0.1UF, 16V	
C1091	ECJ0EF1C104Z	C 0.1UF, 16V	
C1092	ECJ1XB1H472K	C 4700PF, K, 50V	
C1093	ECJ1XC1H330J	C 33PF, J, 50V	
C1094	ECJ0EB1C103K	C 0.01UF, 16V	
C1095	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1096	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1097	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1098	ECJ0EF1C104Z	C 0.1UF, 16V	
C1099	ECJ0EF1C104Z	C 0.1UF, 16V	
C1100	ECJ1XC1H221J	C 220PF, 50V	
C1101	ECJ0EF1C104Z	C 0.1UF, 16V	
C1102	EEFUD0J101R	CAPACITOR	
C1103	ECJ0EF1C104Z	C 0.1UF, 16V	
C1104	ECJ0EF1C104Z	C 0.1UF, 16V	
C1105	ECJ0EF1C104Z	C 0.1UF, 16V	
C1106	EEVHB0G101	E 100UF, 4V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1107	ECJ0EF1C104Z	C 0.1UF, 16V	
C1108	ECJ0EF1C104Z	C 0.1UF, 16V	
C1109	ECJ2XC1H391J	C 390PF, J, 50V	
C1110	EEVHB1C100	E 10UF, 16V	
C1111	ECJ0EF1C104Z	C 0.1UF, 16V	
C1112	ECJ0EF1C104Z	C 0.1UF, 16V	
C1113	ECJ0EF1C104Z	C 0.1UF, 16V	
C1114	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1115	ECJ1XC1H181J	C 180PF, J, 50V	
C1116	ECJ1XF1A105Z	C 100UF, 10V	
C1117	EEVHB1C470	E 47UF, 16V	
C1119	ECJ0EF1C104Z	C 0.1UF, 16V	
C1120	EEVHB0J470	E 47UF, 6.3V	
C1121	EEVHB0J330	E 33UF, 6.3V	
C1122	EEVHB0J330	E 33UF, 6.3V	
C1123	ECJ0EF1C104Z	C 0.1UF, 16V	
C1124	ECJ0EF1C104Z	C 0.1UF, 16V	
C1125	ECJ0EF1C104Z	C 0.1UF, 16V	
C1126	ECJ0EF1C104Z	C 0.1UF, 16V	
C1127	ECJ0EF1C104Z	C 0.1UF, 16V	
C1128	ECJ0EF1C104Z	C 0.1UF, 16V	
C1129	ECJ0EF1C104Z	C 0.1UF, 16V	
C1130	ECJ0EF1C104Z	C 0.1UF, 16V	
C1131	ECJ0EF1C104Z	C 0.1UF, 16V	
C1132	ECJ0EF1C104Z	C 0.1UF, 16V	
C1133	ECJ0EF1C104Z	C 0.1UF, 16V	
C1134	ECJ0EF1C104Z	C 0.1UF, 16V	
C1135	EEVHB0J330	E 33UF, 6.3V	
C1136	EEVHB0J330	E 33UF, 6.3V	
C1137	ECJ0EF1C104Z	C 0.1UF, 16V	
C1138	EEVHB0J330	E 33UF, 6.3V	
C1139	ECJ0EF1C104Z	C 0.1UF, 16V	
C1140	EEVHB0G101	E 100UF, 4V	
C1141	ECJ0EF1C104Z	C 0.1UF, 16V	
C1142	ECJ0EF1C104Z	C 0.1UF, 16V	
C1143	EEVHB0J470	E 47UF, 6.3V	
C1144	EEVHB0G101	E 100UF, 4V	
C1145	ECJ0EF1C104Z	C 0.1UF, 16V	
C1146	ECUX1H120JCV	C 12PF, 50V	
C1147	ECUX1H120JCV	C 12PF, 50V	
C1148	ECJ0EB1C103K	C 0.01UF, 16V	
C1150	ECJ1XF1A105Z	C 100UF, 10V	
C1151	ECJ1XF1A105Z	C 100UF, 10V	
C1152	ECJ1XF1A105Z	C 100UF, 10V	
C1153	ECJ0EF1C104Z	C 0.1UF, 16V	
C1154	ECJ0EF1C104Z	C 0.1UF, 16V	
C1155	ECJ0EF1C104Z	C 0.1UF, 16V	
C1156	ECJ0EF1C104Z	C 0.1UF, 16V	
C1157	ECJ0EF1C104Z	C 0.1UF, 16V	
C1158	ECJ0EF1C104Z	C 0.1UF, 16V	
C1159	ECJ0EF1C104Z	C 0.1UF, 16V	
C1160	ECJ0EF1C104Z	C 0.1UF, 16V	
C1161	ECJ0EF1C104Z	C 0.1UF, 16V	
C1162	ECJ0EF1C104Z	C 0.1UF, 16V	
C1163	ECJ0EF1C104Z	C 0.1UF, 16V	
C1164	ECJ1XB1A334K	C 0.22UF, 10V	
C1165	ECJ1XB1A334K	C 0.22UF, 10V	
C1166	ECJ0EF1C104Z	C 0.1UF, 16V	
C1167	ECJ0EF1C104Z	C 0.1UF, 16V	
C1168	ECJ0EF1C104Z	C 0.1UF, 16V	
C1169	ECJ0EF1C104Z	C 0.1UF, 16V	
C1170	ECJ0EF1C104Z	C 0.1UF, 16V	
C1171	ECJ0EF1C104Z	C 0.1UF, 16V	
C1172	ECJ1XF1A105Z	C 100UF, 10V	
C1173	ECJ1XF1A105Z	C 100UF, 10V	
C1174	ECJ0EF1C104Z	C 0.1UF, 16V	
C1175	ECJ0EF1C104Z	C 0.1UF, 16V	
C1176	ECJ0EF1C104Z	C 0.1UF, 16V	
C1177	ECJ0EF1C104Z	C 0.1UF, 16V	
C1178	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1179	ECJ1XF1A105Z	C 100UF, 10V	
C1180	ECJ1XF1A105Z	C 100UF, 10V	
C1181	ECJ1XF1A105Z	C 100UF, 10V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1182	ECJ1XF1A105Z	C 100UF, 10V	
C1183	ECJ0EB1C103K	C 0.01UF, 16V	
C1184	ECJ0EF1C104Z	C 0.1UF, 16V	
C1185	ECJ0EF1C104Z	C 0.1UF, 16V	
C1186	ECJ1XC1H471J	C 470PF, J, 50V	
C1187	ECJ1XF1A105Z	C 100UF, 10V	
C1188	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1189	ECJ1XF1A105Z	C 100UF, 10V	
C1190	ECJ1XC1H121J	C 120PF, 50V	
C1191	ECJ0EF1C104Z	C 0.1UF, 16V	
C1192	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1193	ECJ0EF1C104Z	C 0.1UF, 16V	
C1194	ECJ0EB1C103K	C 0.01UF, 16V	
C1195	ECJ0EF1C104Z	C 0.1UF, 16V	
C1196	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1197	ECJ0EF1C104Z	C 0.1UF, 16V	
C1198	ECJ0EF1C104Z	C 0.1UF, 16V	
C1199	ECJ0EF1C104Z	C 0.1UF, 16V	
C1200	ECJ0EF1C104Z	C 0.1UF, 16V	
C1201	ECJ0EF1C104Z	C 0.1UF, 16V	
C1202	ECJ0EF1C104Z	C 0.1UF, 16V	
C1203	ECJ0EF1C104Z	C 0.1UF, 16V	
C1204	ECJ0EF1C104Z	C 0.1UF, 16V	
C1205	ECJ0EF1C104Z	C 0.1UF, 16V	
C1206	ECJ0EF1C104Z	C 0.1UF, 16V	
C1207	ECJ0EF1C104Z	C 0.1UF, 16V	
C1208	ECJ0EF1C104Z	C 0.1UF, 16V	
C1209	ECJ0EF1C104Z	C 0.1UF, 16V	
C1210	ECJ0EF1C104Z	C 0.1UF, 16V	
C1211	ECJ0EF1C104Z	C 0.1UF, 16V	
C1212	ECJ0EF1C104Z	C 0.1UF, 16V	
C1213	ECJ0EF1C104Z	C 0.1UF, 16V	
C1214	ECJ0EF1C104Z	C 0.1UF, 16V	
C1215	ECJ0EF1C104Z	C 0.1UF, 16V	
C1216	ECJ0EF1C104Z	C 0.1UF, 16V	
C1217	ECJ0EF1C104Z	C 0.1UF, 16V	
C1218	ECJ0EF1C104Z	C 0.1UF, 16V	
C1219	EEVHB0G101	E 100UF, 4V	
C1220	EEVHB0G101	E 100UF, 4V	
C1221	ECJ0EF1C104Z	C 0.1UF, 16V	
C1222	ECJ0EF1C104Z	C 0.1UF, 16V	
C1223	ECJ0EF1C104Z	C 0.1UF, 16V	
C1224	ECJ0EF1C104Z	C 0.1UF, 16V	
C1225	ECJ0EF1C104Z	C 0.1UF, 16V	
C1226	ECJ0EF1C104Z	C 0.1UF, 16V	
C1227	ECJ0EF1C104Z	C 0.1UF, 16V	
C1228	ECJ0EF1C104Z	C 0.1UF, 16V	
C1229	ECJ0EF1C104Z	C 0.1UF, 16V	
C1230	ECJ0EF1C104Z	C 0.1UF, 16V	
C1231	ECJ0EF1C104Z	C 0.1UF, 16V	
C1232	ECJ1XF1A105Z	C 100UF, 10V	
C1233	ECJ0EF1C104Z	C 0.1UF, 16V	
C1235	ECJ0EF1C104Z	C 0.1UF, 16V	
C1236	ECJ0EF1C104Z	C 0.1UF, 16V	
C1237	ECJ0EF1C104Z	C 0.1UF, 16V	
C1238	ECJ0EF1C104Z	C 0.1UF, 16V	
C1239	ECJ0EF1C104Z	C 0.1UF, 16V	
C1240	ECJ0EF1C104Z	C 0.1UF, 16V	
C1241	ECJ0EF1C104Z	C 0.1UF, 16V	
C1242	ECJ0EF1C104Z	C 0.1UF, 16V	
C1243	ECJ0EF1C104Z	C 0.1UF, 16V	
C1244	ECJ0EF1C104Z	C 0.1UF, 16V	
C1245	ECJ0EF1C104Z	C 0.1UF, 16V	
C1246	ECJ0EF1C104Z	C 0.1UF, 16V	
C1247	EEVHB0G101	E 100UF, 4V	
C1248	ECJ1XC1H331J	C 330PF, J, 50V	
C1249	ECJ0EF1C104Z	C 0.1UF, 16V	
C1288	EEVHB0G101	E 100UF, 4V	
C1289	ECJ0EF1C104Z	C 0.1UF, 16V	
C1290	ECJ0EF1C104Z	C 0.1UF, 16V	
C1291	ECJ0EF1C104Z	C 0.1UF, 16V	
C1292	ECJ1XC1H330J	C 33PF, J, 50V	
C1293	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1294	ECJ0EF1C104Z	C 0.1UF, 16V	
C1295	ECJ0EF1C104Z	C 0.1UF, 16V	
C1296	ECJ0EF1C104Z	C 0.1UF, 16V	
C1297	ECJ0EF1C104Z	C 0.1UF, 16V	
C1298	ECJ0EF1C104Z	C 0.1UF, 16V	
C1299	ECJ0EF1C104Z	C 0.1UF, 16V	
C1300	EEVHB0G221	E 220UF, 4V	
C1301	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1302	ECJ0EF1C104Z	C 0.1UF, 16V	
C1303	ECJ0EF1C104Z	C 0.1UF, 16V	
C1304	ECJ0EF1C104Z	C 0.1UF, 16V	
C1305	ECJ0EF1C104Z	C 0.1UF, 16V	
C1306	ECJ1XF1A105Z	C 100UF, 10V	
C1307	ECJ0EF1C104Z	C 0.1UF, 16V	
C1308	ECJ0EF1C104Z	C 0.1UF, 16V	
C1309	ECJ0EF1C104Z	C 0.1UF, 16V	
C1310	ECJ0EF1C104Z	C 0.1UF, 16V	
C1312	ECJ0EF1C104Z	C 0.1UF, 16V	
C1313	ECJ0EF1C104Z	C 0.1UF, 16V	
C1314	ECJ0EF1C104Z	C 0.1UF, 16V	
C1315	ECJ0EF1C104Z	C 0.1UF, 16V	
C1316	ECJ1XF1H333Z	C 0.033UF, 50V	
C1317	ECJ0EF1C104Z	C 0.1UF, 16V	
C1319	ECJ0EF1C104Z	C 0.1UF, 16V	
C1320	ECJ0EF1C104Z	C 0.1UF, 16V	
C1321	ECJ0EF1C104Z	C 0.1UF, 16V	
C1322	ECJ1XC1H471J	C 470PF, J, 50V	
C1323	ECJ0EF1C104Z	C 0.1UF, 16V	
C1324	ECJ0EF1C104Z	C 0.1UF, 16V	
C1325	ECJ0EF1C104Z	C 0.1UF, 16V	
C1326	ECJ1XC1H180J	C 180PF, J, 50V	
C1327	ECJ1XC1H180J	C 180PF, J, 50V	
C1328	ECJ0EF1C104Z	C 0.1UF, 16V	
C1329	ECJ0EF1C104Z	C 0.1UF, 16V	
C1330	ECJ0EF1C104Z	C 0.1UF, 16V	
C1331	EEVHB0G101	E 100UF, 4V	
C1332	ECJ0EF1C104Z	C 0.1UF, 16V	
C1333	EEVHB0J330	E 33UF, 6.3V	
C1334	ECJ0EF1C104Z	C 0.1UF, 16V	
C1335	EEVHB0G101	E 100UF, 4V	
C1337	ECJ0EF1C104Z	C 0.1UF, 16V	
C1338	ECJ0EF1C104Z	C 0.1UF, 16V	
C1339	ECJ0EF1C104Z	C 0.1UF, 16V	
C1340	ECJ0EF1C104Z	C 0.1UF, 16V	
C1341	ECJ0EF1C104Z	C 0.1UF, 16V	
C1342	ECJ0EF1C104Z	C 0.1UF, 16V	
C1343	ECJ0EF1C104Z	C 0.1UF, 16V	
C1344	ECJ0EF1C104Z	C 0.1UF, 16V	
C1345	ECJ0EF1C104Z	C 0.1UF, 16V	
C1346	ECJ0EF1C104Z	C 0.1UF, 16V	
C1347	ECJ0EF1C104Z	C 0.1UF, 16V	
C1348	ECJ0EF1C104Z	C 0.1UF, 16V	
C1349	ECJ0EF1C104Z	C 0.1UF, 16V	
C1350	ECJ0EF1C104Z	C 0.1UF, 16V	
C1351	ECJ0EF1C104Z	C 0.1UF, 16V	
C1352	ECJ0EF1C104Z	C 0.1UF, 16V	
C1353	ECJ0EF1C104Z	C 0.1UF, 16V	
C1354	ECJ0EF1C104Z	C 0.1UF, 16V	
C1355	ECJ0EF1C104Z	C 0.1UF, 16V	
C1356	ECJ0EF1C104Z	C 0.1UF, 16V	
C1357	ECJ0EF1C104Z	C 0.1UF, 16V	
C1358	ECJ0EF1C104Z	C 0.1UF, 16V	
C1359	ECJ0EF1C104Z	C 0.1UF, 16V	
C1360	ECJ0EF1C104Z	C 0.1UF, 16V	
C1361	ECJ0EF1C104Z	C 0.1UF, 16V	
C1362	ECJ0EF1C104Z	C 0.1UF, 16V	
C1363	ECJ0EF1C104Z	C 0.1UF, 16V	
C1364	ECJ0EF1C104Z	C 0.1UF, 16V	
C1365	ECJ0EF1C104Z	C 0.1UF, 16V	
C1366	ECJ0EF1C104Z	C 0.1UF, 16V	
C1367	ECJ0EF1C104Z	C 0.1UF, 16V	
C1368	ECJ0EF1C104Z	C 0.1UF, 16V	
C1369	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1370	ECJ0EF1C104Z	C 0.1UF, 16V	
C1371	EEVHB1E4R7	E 4.7UF, 25V	
C1372	ECJ0EF1C104Z	C 0.1UF, 16V	
C1373	EEVHB1E4R7	E 4.7UF, 25V	
C1374	EEVHB1A221	E 220UF, 10V	
C1375	EEVHB0G101	E 100UF, 4V	
C1376	EEVHB0G101	E 100UF, 4V	
C1377	EEVHB0G101	E 100UF, 4V	
C1378	ECJ0EF1C104Z	C 0.1UF, 16V	
C1379	ECJ0EF1C104Z	C 0.1UF, 16V	
C1380	ECJ0EF1C104Z	C 0.1UF, 16V	
C1381	ECJ0EB1C103K	C 0.01UF, 16V	
C1382	ECJ0EF1C104Z	C 0.1UF, 16V	
C1383	ECJ0EB1C103K	C 0.01UF, 16V	
C1384	ECJ0EF1C104Z	C 0.1UF, 16V	
C1385	ECJ0EB1C103K	C 0.01UF, 16V	
C1386	ECJ0EF1C104Z	C 0.1UF, 16V	
C1387	ECJ0EF1C104Z	C 0.1UF, 16V	
C1388	ECJ0EF1C104Z	C 0.1UF, 16V	
C1389	ECJ0EF1C104Z	C 0.1UF, 16V	
C1390	ECJ0EF1C104Z	C 0.1UF, 16V	
C1391	ECJ0EF1C104Z	C 0.1UF, 16V	
C1392	ECJ0EF1C104Z	C 0.1UF, 16V	
C1393	ECJ0EF1C104Z	C 0.1UF, 16V	
C1394	ECJ0EF1C104Z	C 0.1UF, 16V	
C1395	ECJ0EF1C104Z	C 0.1UF, 16V	
C1396	ECJ0EF1C104Z	C 0.1UF, 16V	
C1397	ECJ0EF1C104Z	C 0.1UF, 16V	
C1398	ECJ0EF1C104Z	C 0.1UF, 16V	
C1399	ECJ0EF1C104Z	C 0.1UF, 16V	
C1400	ECJ0EF1C104Z	C 0.1UF, 16V	
C1401	ECJ0EF1C104Z	C 0.1UF, 16V	
C1402	ECJ0EF1C104Z	C 0.1UF, 16V	
C1403	ECJ0EF1C104Z	C 0.1UF, 16V	
C1404	ECJ0EF1C104Z	C 0.1UF, 16V	
C1405	ECJ0EF1C104Z	C 0.1UF, 16V	
C1406	ECJ0EF1C104Z	C 0.1UF, 16V	
C1407	ECJ0EF1C104Z	C 0.1UF, 16V	
C1408	ECJ0EF1C104Z	C 0.1UF, 16V	
C1409	ECJ0EF1C104Z	C 0.1UF, 16V	
C1410	ECJ0EF1C104Z	C 0.1UF, 16V	
C1411	ECJ0EF1C104Z	C 0.1UF, 16V	
C1412	ECJ0EF1C104Z	C 0.1UF, 16V	
C1413	ECJ0EF1C104Z	C 0.1UF, 16V	
C1414	ECJ0EF1C104Z	C 0.1UF, 16V	
C1415	ECJ0EF1C104Z	C 0.1UF, 16V	
C1416	ECJ0EF1C104Z	C 0.1UF, 16V	
C1417	ECJ0EF1C104Z	C 0.1UF, 16V	
C1418	ECJ0EF1C104Z	C 0.1UF, 16V	
C1419	ECJ0EF1C104Z	C 0.1UF, 16V	
C1420	ECJ0EF1C104Z	C 0.1UF, 16V	
C1421	ECJ0EF1C104Z	C 0.1UF, 16V	
C1422	ECJ0EF1C104Z	C 0.1UF, 16V	
C1423	ECJ0EF1C104Z	C 0.1UF, 16V	
C1424	ECJ0EF1C104Z	C 0.1UF, 16V	
C1425	ECJ0EF1C104Z	C 0.1UF, 16V	
C1426	ECJ0EF1C104Z	C 0.1UF, 16V	
C1427	ECJ0EF1C104Z	C 0.1UF, 16V	
C1428	ECJ0EF1C104Z	C 0.1UF, 16V	
C1429	EEVHB1E330	E 33UF, 25V	
C1430	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1431	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1432	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1433	EEVHB1E330	E 33UF, 25V	
C1434	EEVHB1E330	E 33UF, 25V	
C1435	EEVHB1E330	E 33UF, 25V	
C1436	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1437	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1438	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1439	EEVHB1E330	E 33UF, 25V	
C1440	EEVHB1E330	E 33UF, 25V	
C1441	EEVHB1E330	E 33UF, 25V	
C1442	ECJ1XF1E104Z	C 0.1UF, Z, 25V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1443	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1444	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1446	ECJ0EF1C104Z	C 0.1UF, 16V	
C1447	ECJ0EF1C104Z	C 0.1UF, 16V	
C1448	ECJ0EF1C104Z	C 0.1UF, 16V	
C1449	ECJ0EF1C104Z	C 0.1UF, 16V	
C1450	ECJ0EF1C104Z	C 0.1UF, 16V	
C1451	ECJ0EF1C104Z	C 0.1UF, 16V	
C1452	ECJ0EF1C104Z	C 0.1UF, 16V	
C1453	ECJ0EF1C104Z	C 0.1UF, 16V	
C1454	ECJ0EF1C104Z	C 0.1UF, 16V	
C1455	ECJ0EF1C104Z	C 0.1UF, 16V	
C1456	ECJ0EF1C104Z	C 0.1UF, 16V	
C1457	ECJ0EF1C104Z	C 0.1UF, 16V	
C1458	ECJ0EF1C104Z	C 0.1UF, 16V	
C1459	ECJ0EF1C104Z	C 0.1UF, 16V	
C1460	ECJ0EF1C104Z	C 0.1UF, 16V	
C1461	ECJ0EF1C104Z	C 0.1UF, 16V	
C1462	ECJ0EF1C104Z	C 0.1UF, 16V	
C1463	ECJ0EF1C104Z	C 0.1UF, 16V	
C1464	ECJ0EF1C104Z	C 0.1UF, 16V	
C1465	ECJ0EF1C104Z	C 0.1UF, 16V	
C1466	ECJ0EF1C104Z	C 0.1UF, 16V	
C1467	ECJ0EF1C104Z	C 0.1UF, 16V	
C1468	ECJ0EF1C104Z	C 0.1UF, 16V	
C1469	ECJ0EF1C104Z	C 0.1UF, 16V	
C1470	ECJ0EF1C104Z	C 0.1UF, 16V	
C1471	EEVHB0G101	E 100UF, 4V	
C1472	EEVHB0G101	E 100UF, 4V	
C1473	EEFUD0J101R	CAPACITOR	
C2001	EEVHB0J470	E 47UF, 6.3V	
C2002	ECJ1XF1C104Z	C 0.1UF, Z, 16V	
C3001	EEFCD0J470R	CAPACITOR	
C3002	ECJ1XF1C104Z	C 0.1UF, Z, 16V	
C3402	EEVHB0J33	E 33UF, 6.3V	PT-AE500E
C3405	ECJ1XB1C103K	C 0.01UF, Z, 16V	PT-AE500E
C3406	ECJ1XB1C103K	C 0.01UF, Z, 16V	PT-AE500E
C3407	EEVHB0J330	E 33UF, 6.3V	PT-AE500E
C3408	ECJ1XB1C103K	C 0.01UF, Z, 16V	PT-AE500E
C3409	ECJ1XF1C104Z	C 0.1UF, Z, 16V	PT-AE500E
C3410	EEVHB0J330	E 33UF, 6.3V	PT-AE500E
C3411	EEVHB0J330	E 33UF, 6.3V	PT-AE500E
C3412	ECJ1XF1C104Z	C 0.1UF, Z, 16V	PT-AE500E
C9101	ECQU2A474MLA	P 0.47UF, M,250V	⚠
C9102	ECQU2A224MLA	P 0.22UF, M,250V	⚠
C9103	ECKCNA102MBB	C 1000PF, M,	⚠
C9104	ECKCNA102MBB	C 1000PF, M,	⚠
		[OTHERS]	
A1	K1MN36B00014	36P CONNECTOR	
A2	K1MN36B00014	36P CONNECTOR	
A3	K1MN36B00014	36P CONNECTOR	
A4	K1KA07B00041	7P CONNECTOR	
A6	K1KA12B00079	12P CONNECTOR	
A8	K1KA13B00041	13P CONNECTOR	
A15	TJS6A8780	3P CONNECTOR	K1KA03B00006
A16	TJS6A8780	3P CONNECTOR	K1KA03B00006
A17	TJS6A8780	3P CONNECTOR	K1KA03B00006
A18	TJS6A8780	3P CONNECTOR	K1KA03B00006
A19	K1KA04B00007	4P CONNECTOR	
A21	K1KA14B00073	14P CONNECTOR	
K1	K1KA02A00104	2P CONNECTOR	
R1	K1KA03B00098	3P CONNECTOR	
S1	K1KA13A00066	13P CONNECTOR	
S2	K1KA02A00101	2P CONNECTOR	
S4	K1KA03A00153	3P CONNECTOR	
F9101-1	TJC6320	FUSE HOLDER,SMALL	K3GE1ZB00002
F9101-2	TJC6320	FUSE HOLDER,SMALL	K3GE1ZB00002
F9102-1	TJC6320	FUSE HOLDER,SMALL	K3GE1ZB00002
F9102-2	TJC6320	FUSE HOLDER,SMALL	K3GE1ZB00002
F9101	K5D502BN0003	FUSE	⚠
F9102	K5D502BN0003	FUSE	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
J1	K1KA14B00073	14P CONNECTOR	PT-AE500E
JK1001	K1CB205B0002	S-VIDEO/VIDEO IN TERMINAL	
JK1002	K2HA304B0006	Y/Pb/Pr IN TERMINAL	
JK1003	K2HC102B0005	TRIGGER OUT TERMINAL	
JK1005	TJSF45015	RGB1 IN TERMINAL	K1FB115B0058
JK1901	K1FB124B0021	DVI IN TERMINAL	
JK3401	K1FB121B0007	D-TERMINAL	PT-AE500E
JK3402	TJC6137	EARTH LUG	PT-AE500E
JK9101	TJC6137	EARTH LUG	
JS1002	ERJ3GEY0R00	M 0 OHM, 1/16W	
JS1003	ERJ3GEY0R00	M 0 OHM, 1/16W	
JS1004	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1005	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1006	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1007	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1008	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1009	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1010	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1011	ERJ6GEY0R00	M 0 OHM,J,1/10W	
RM3001	B3RAD0000036	REMOTE CONTROL RECEIVER	
S2001	EVQPLHA15	SWITCH	
S2002	EVQPLHA15	SWITCH	
S2003	EVQPLHA15	SWITCH	
S2004	EVQPLHA15	SWITCH	
S2005	EVQPLHA15	SWITCH	
S2006	EVQPLHA15	SWITCH	
S2007	EVQPLHA15	SWITCH	
S2008	EVQPLHA15	SWITCH	
S2009	EVQPLHA15	SWITCH	
X1001	H1A7505B0003	CRYSTAL	
X1002	H0J270500045	CRYSTAL	
X1003	H0J737400007	CRYSTAL	
X1004	H0J202500002	CRYSTAL	
RTL	TNPA2665	CIRCUIT BOARD R	
RTL	TNPA2666AB	CIRCUIT BOARD S	
RTL	TNPA2668AB	CIRCUIT BOARD J	PT-AE500E
RTL	TXANP03PUMZ	CIRCUIT BOARD K	PT-AE500U
	TXANP03PUNZ	CIRCUIT BOARD K	PT-AE500E
RTL	TXANP01PUMZ	CIRCUIT BOARD A	
	TNPA2361AB-2	CIRCUIT BOARD P	
	TXANPBQVJV2	CIRCUIT BOARD B/Q	